April 2001
Volume 69 No 4

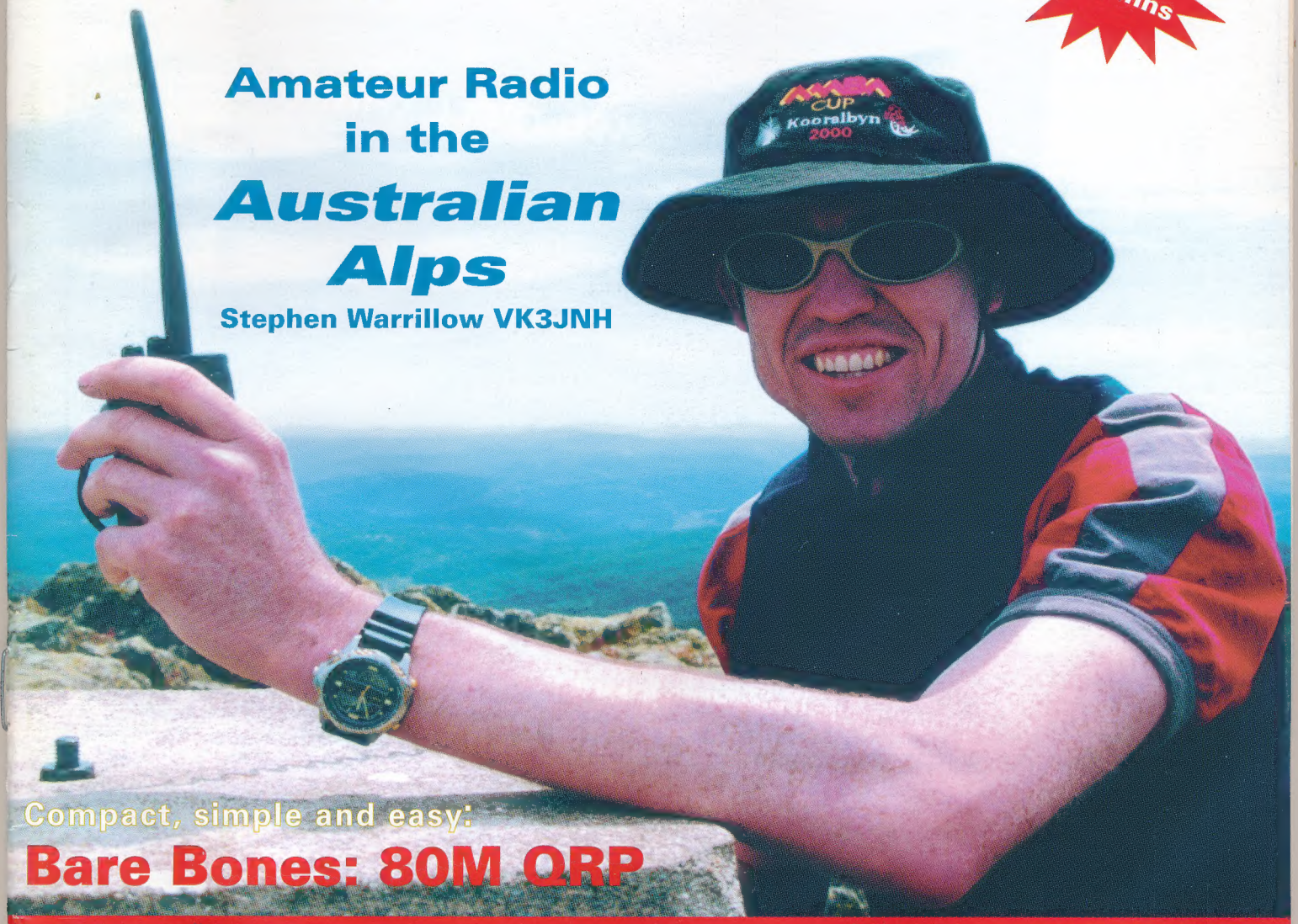
Amateur Radio

WIRELESS INSTITUTE OF AUSTRALIA

QUIZ

How much do you know about your WIA?

Regular Columns



Amateur Radio in the Australian Alps

Stephen Warrillow VK3JNH

Compact, simple and easy:

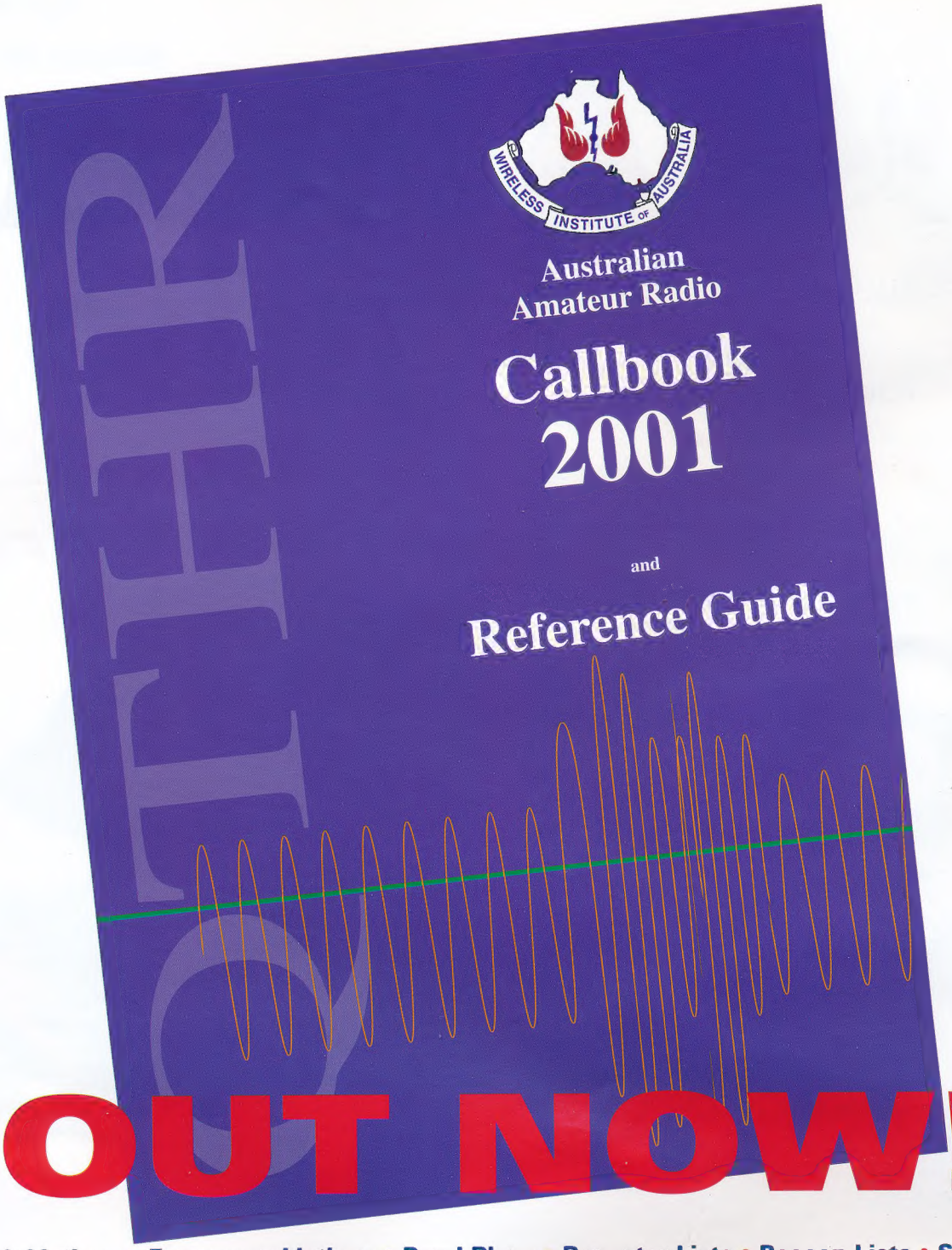
Bare Bones: 80M QRP

- Invisible Antennas
- Making Holes in Sheet-Metal

Drew Diamond, VK3XU

The Rise and Fall and Rise of the GRES

Technical Abstracts: •Low Impedance Parallel Square Conductor Transmission Line •Oscilloscope Calibrator•Flying Solo Cable Tester



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Amateur Radio

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Contributions to Amateur Radio

Amateur Radio is a forum for WIA members' amateur radio experiments, experiences opinions and news. Manuscripts with drawings and or photos are always welcome and will be considered for publication. Articles on disc or email are especially welcome. The WIA cannot be responsible for loss or damage to any material. A pamphlet, How to write for Amateur Radio is available from the Federal Office on receipt of a stamped self-addressed envelope.

Back Issues

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Disclaimer

The opinions expressed in this publication do not necessarily reflect the official view of the WIA and the WIA cannot be held responsible for incorrect information published.

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Our cover this month

VK3HFI on the summit of Mt Jajungal with VX-5R. Story page 17

Amateur Radio Service

A radiocommunication service for the purpose of self-training, intercommunication and technical investigation carried out by amateurs; that is, by duly authorised persons interested in radio technique solely with a personal aim and without pecuniary interest.

Wireless Institute of Australia

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Founded 1910

Representing
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International Amateur Radio Union

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Editorial Comment

Colwyn Low VK5UE

The Federal Convention is upon us...

Significant times lots of discussion on almost all aspects of our hobby. Will we have more spectrum or less ? Will we need to demonstrate more of our usefulness to the community ? Will we seriously look at the WIA structure and can we agree on a workable structure? Will we rededicate ourselves to each other? For it is strength of numbers that will carry the day in the end? Martin Luther's paper has been widely published and Federal Council is still to make formal comment on it. This will come at the Federal Council AGM. I have published a letter from Ken Fuller VK4KF in response to Martins proposal. I have to emphasize that the letter is Ken's personal views. It has been unfortunate that I have been unable to publish Martin's paper but I think most of you will have read it some where. I also have included a report from Martin on reaction to his proposals. This is so we can all participate in the process. All comment for change to the WIA Australia must go through Divisions to Federal Councilors to Federal Council. Council decides and the Directors try to make it happen.

I published an article on WICEN just to keep Community Service in ever ones thoughts. The floods have shown that you never can tell when a disaster will strike. We need to be prepared. Field Days are a good exercise to make sure we are prepared. My experiences in John Moyle Field Day were salutary. My learning curve on 1296MHz keeps going up. The transverter has developed a few faults and I should have checked it at close range before going bush. I did not and had a 60 km round trip for nothing. On Field Day it barely worked 500m. On the test bench one transistor in the local oscillator output well down and in the transverter itself there must have been a few marginal solder joints round the mixer. So now it goes into its die cast box and gets checked before it goes to the field again!

I have still a need for material, there are some news columns and I can see the May AR taking shape in March so things are looking up. HOWEVER I do need good PHOTOGRAPHS for the COVER. We need some of novel equipment; please take care with the lighting if you cannot see detail it may not be worth printing. People doing significant things are good as are activities at functions, but please make sure we have good contrast and we can see the person's features. There is not much use in printing clothed silhouettes with black faces.

Please note that VK3ADD whose Obituary was printed in Feb AR page 36 had his Family name incorrectly spelt. It should have been Brain. The Call Book is also incorrect. Thanks Gavin Brain VK3HY.

Other things to note ALARA Contest this year AUGUST 25/26th. New VK/ Trans Tasman Contest May 5th. VK5BAR Proctor BBS is now up and working but not on all HF frequencies. NERG Novice Classes start mid May. Phone 03 9436 0435 for details.

73 Colwyn

New Members

The WIA bids a warm welcome to the following new members who were entered into the WIA Membership Register during the month of February 2001

L10170	MR J M GRODZICKY	VK2JBP	MR P B JOHNSON
L21184	MR D A WARNER	VK2ZXD	MR G CLARKE
VK1PSB	MR S K BATLEY	VK3CGR	MR P A U MCMAHON
VK1WX	MR A HAWES	VK3URB	MR R BAKUNOWICZ
VK2ITJ	MR A KAUFFELT	VK3ZSQ	MR G STEVENS

Bare Bones: 80M QRP

Compact, simple and easy

by Malcolm Haskard. VK5BA

For me home brew products should be compact; I have a fascination for miniatures, simple; the essence of elegance, and easy to construct; not requiring super skills or elaborate workshops. Bare Bones meets these criteria. Compact, for even using leaded components it all fits onto a 50 x 50 mm (2" x 2") PCB; simple, basic proven circuits used, requiring less than 50 components; easy, for the construction requires no wound inductors, no looming and can fit into a range of boxes, either commercial or home made.

Description

Figure 1 shows the circuit schematic. As the name suggest it is a no frills transceiver. The receiver is a conventional NE602/LM386 direct conversion receiver while the two stage transmitter has a buffer for the oscillator and a keyed 2N3866 final stage. Tuning is through pulling a 3.58 MHz ceramic resonator, the range for the capacitors selected being approximately 3.53 to 3.59 MHz. Some variation is possible by experimenting with capacitors C10 and C15, but the values chosen are near optimum values for obtaining strong oscillations from a NE602/612. On 9 volts operation RF power into a 50 ohm load is about 200 mW. Some thoughts on using an external power supply (and possibly higher output power), internal battery or both are given later and should be read before commencing the project.

Construction

The PCB layout (at x2) is shown in Figure 2 while the component placement is given in Figure 3. Since all components mount on the 1/16" thick PCB the specified phone and key sockets, RF connector as well as power switch must be used. Details on these are given in the components list. When preparing the PCB the rear edge must be made level with the two sockets, for the socket nuts hold the rear panel on, and for the panel to be at 90 degrees to the PCB, the PCB must not protrude past the sockets. Similarly nuts of the two recommended 10k potentiometers secure the front panel and once again the PCB must not protrude beyond their front faces. Some potentiometers have a small protrusion on their front face which must either be removed with a file or the washers have a flat filed on them so they sit flush on the front surface of the potentiometer allowing the PCB and front panel to be at 90 degrees. Note that as drawn, the PCB extends beyond the potentiometers, with two mounting holes centres shown. This option allows a metal bracket or extension to be added to the board so that it can accommodate other potentiometer styles/sizes and the assembly adapted so that the PCB can be mounted in a range of box sizes - the two sockets providing mounting to the rear panel and the metal bracket/ extension to provide front mounting. For the remainder of this article it will be assumed that the recommended potentiometers will be employed and one or other of the two case sizes shown in Figure 4 will be made. (This means that the extended portion of the PCB beyond the front face of the potentiometers is removed.)

When assembling the PCB the first step is to solder on the four rear large mechanical components and then the one wire link LL', located just in front of the RF connector. All the remaining components can be assembled in any order, however it is recommended the potentiometers are left until last. When assembled the board can be tested and verified that it works - noise in the headphones on receive and when keyed RF into a 50 ohm dummy load. Typical current drains (9v supply) - receive <20mA; key down 60mA.

Power supply

A decision must be made regarding the power source. The larger of the two cases (Figure 4b) assumes that a 9 volt battery is housed inside the case. A heavy duty or a lithium battery is essential. The battery lead should be tied to one of the heavy switch leads to ensure it cannot flex breaking the wires. Should it be decided that only an external battery or mains power supply be used then the smaller case will suffice. The on/off switch can even be omitted and a power-in socket fitted above the phone jack socket as indicated in Figure 4a and 4b. Some may choose to have both options, an internal battery for portable operation with a mains power supply for home use. Here the on/off switch becomes a change over switch, the power socket again mounted on the rear panel with power applied to the unused switch contact and the negative (earth) taken from the earthed switch housing. With the external power supply disconnected the switch becomes a battery on/off switch.

Case construction

The two case sizes both consist of four "U" shaped parts (Figures 4a and 5). The front and rear panels together with the top are made from 18 gauge aluminium and the "U" shaped bottom from thin tin plate. Being thin the bottom plate can slip under the sides of the top panel and everything is held together by four small metal screws. Make sure the screws are clear of the PCB and on the under side. A 50mm wide, 75 mm long piece of plastic sheet (cut from a 2 litre milk container) and bent into an "L" shape can be placed between the bottom tin plate panel and the PCB, with a vertical section separating the battery from the PCB.

Accessories for portable operation

For portable work small accessories enhance the Bare Bones compactness.

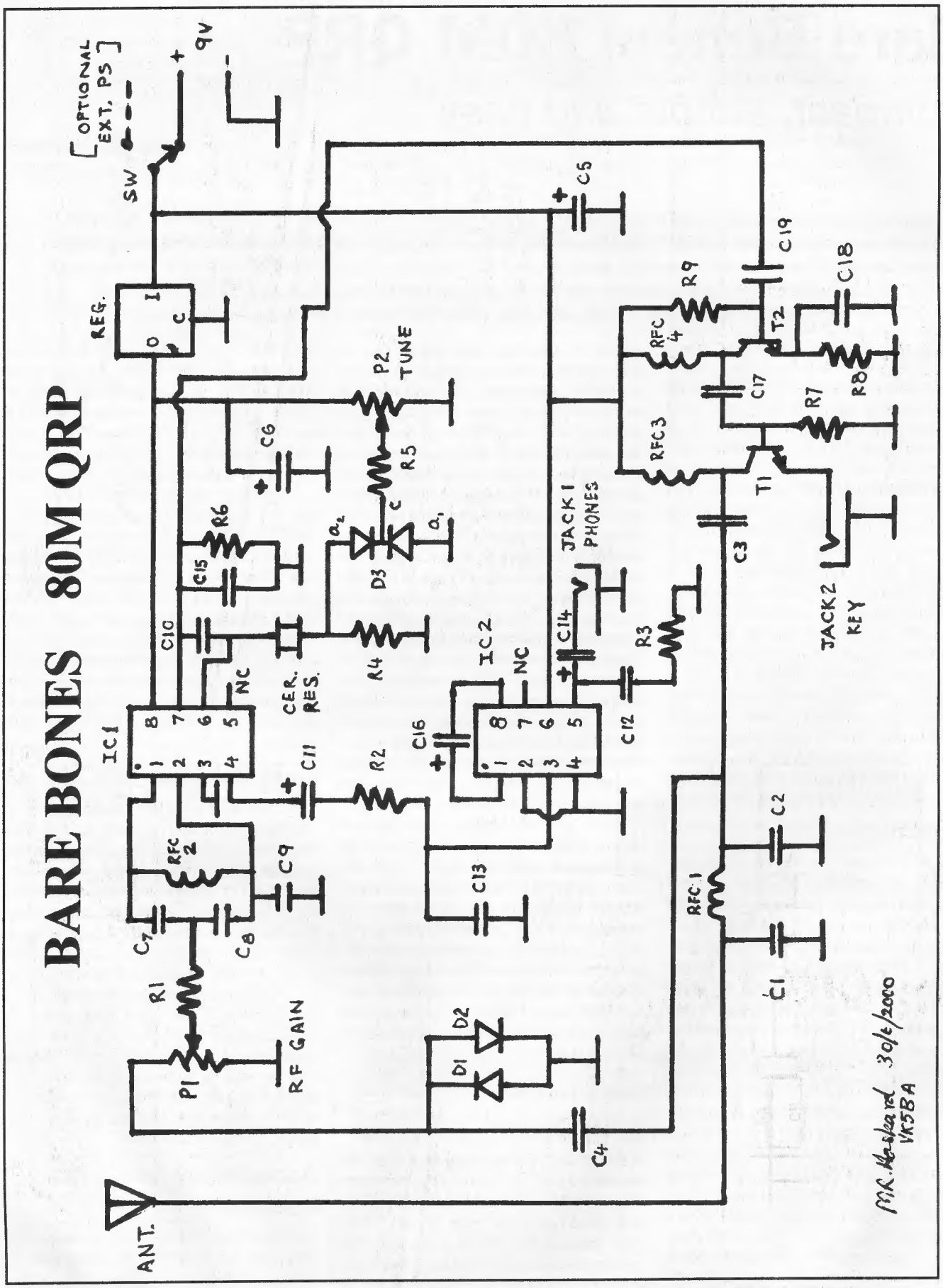

Figure 1. Circuit schematic for the Bare Bones QRP transceiver.

Normal good quality Walkman ear phones suffice with a small Morse key made out of a relay leaf spring, microswitch or similar (Figure 6). For the antenna a 10 metre length of PVC covered wire is used, requiring a small antenna tuning unit. As a compromise a fixed matching unit is used, that plugs directly into the transceiver antenna RCA connector. The unit is constructed in a very small tin plate housing with an earth terminal/clip included. Details are given in Figure 7.

Conclusions

Bare Bones is a very compact simple unit guaranteed to give lots of fun and some frustrations. The latter will provide a challenge to others to come up with improvements, hopefully retaining the criteria of being compact, simple and easy.

Acknowledgments

I wish to acknowledge the kind assistance of John Duval who undertook the board layout and Kon Joukovski for making the PCB.

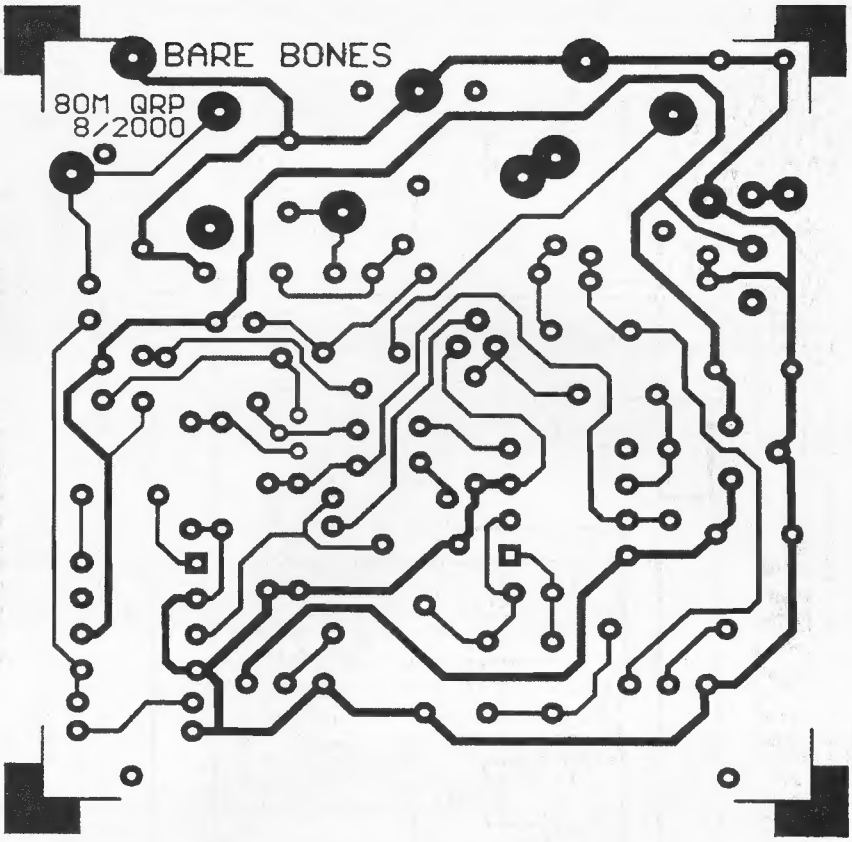

Figure 2. Layout of the PCB at x2 size.

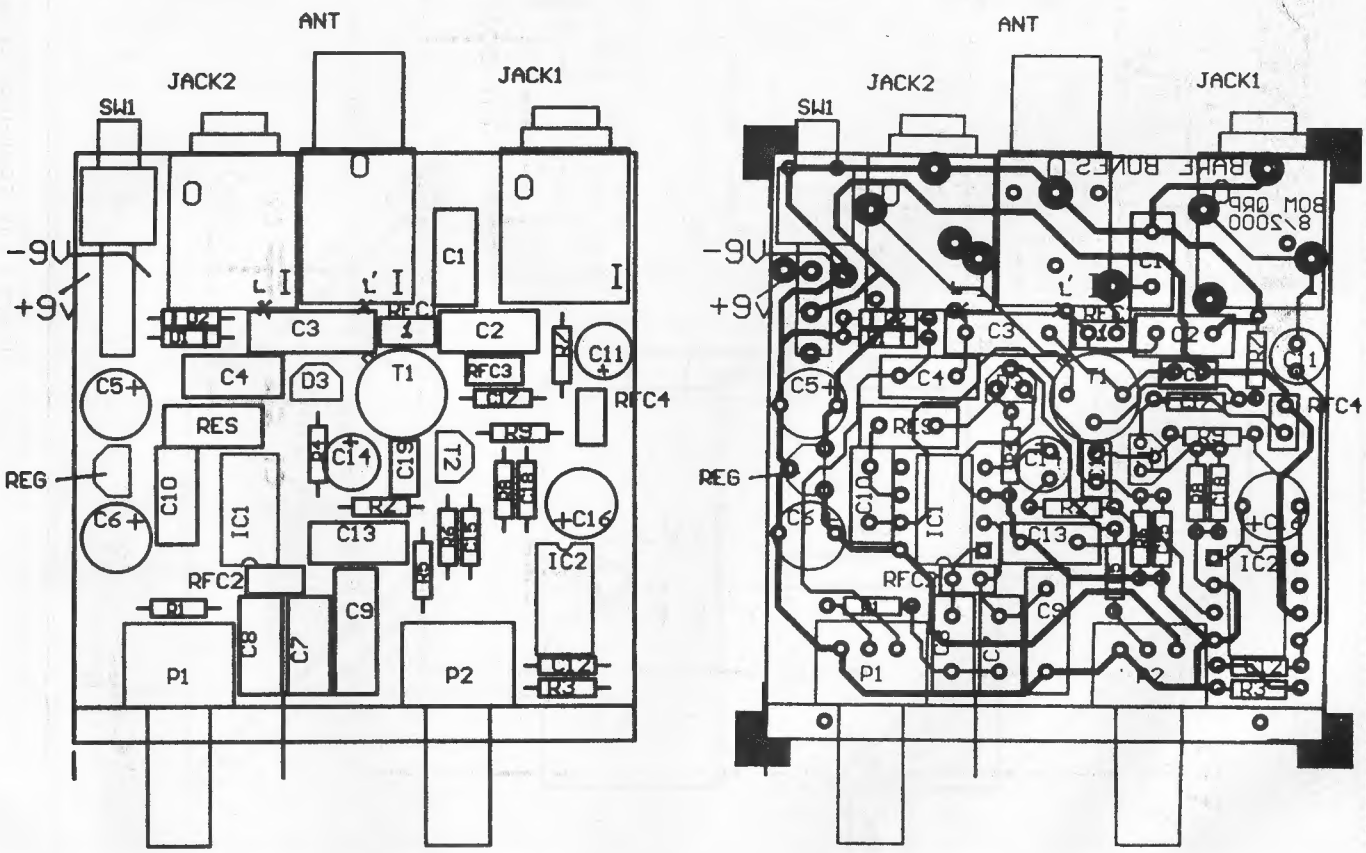

Figure 3. Component placement for the board.

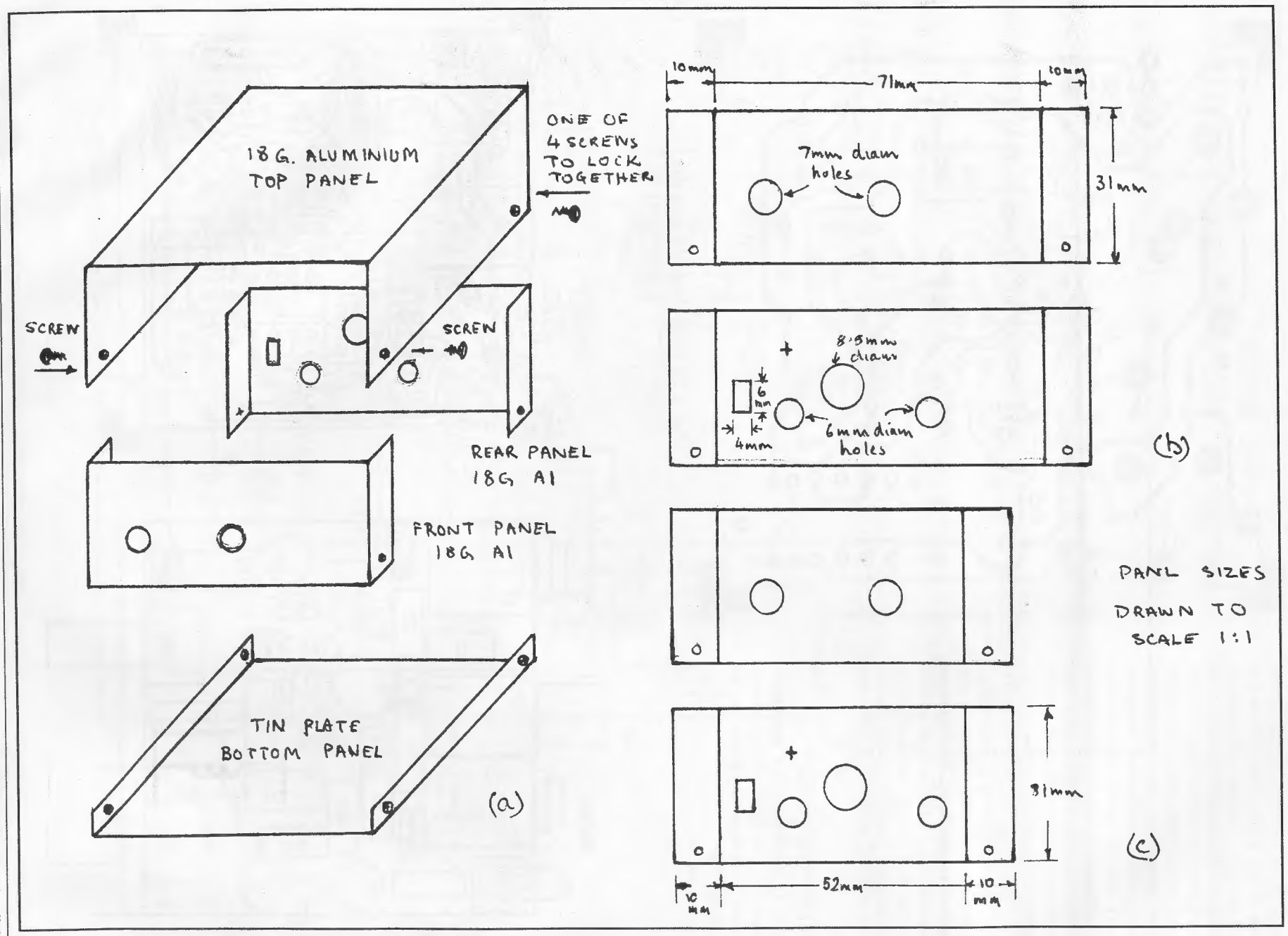

Figure 4. Simple case designs. Exploded view (a) and full size front and rear panels for two versions. Style (b) has sufficient space for an in house battery, while (c) relies on an external power source.

Component List

Resistors (all 250mW)
R1 10k
R2 2.7k
R3 100 ohm
R4 1M
R5 100k
R6 10k
R7 150 ohm
R8 100 ohm
R9 120k (Note - Select so collector current T2 is 8-10mA a compromise between current drain and RF power out)

Capacitors (all disk ceramic unless stated otherwise)

C1 1000pF
C2 680pF
C3 0.01uF
C4 68pF
C5 220uF electrolytic
C6 0.01uF
C7 100pF
C8 680pf
C9 0.1uF
C10 390pF
C11 3.3uF electrolytic
C12 0.022uF
C13 0.1uF
C14 33uF electrolytic
C15 56pF
C17 0.01uF
C18 0.01uF
C19 100pF

Inductors

RFC1 4.7uH DS - R5208
RFC2 22uH DS - R5218
RFC3 6.8uH DS - R5210
RFC4 100uHDS - R5228

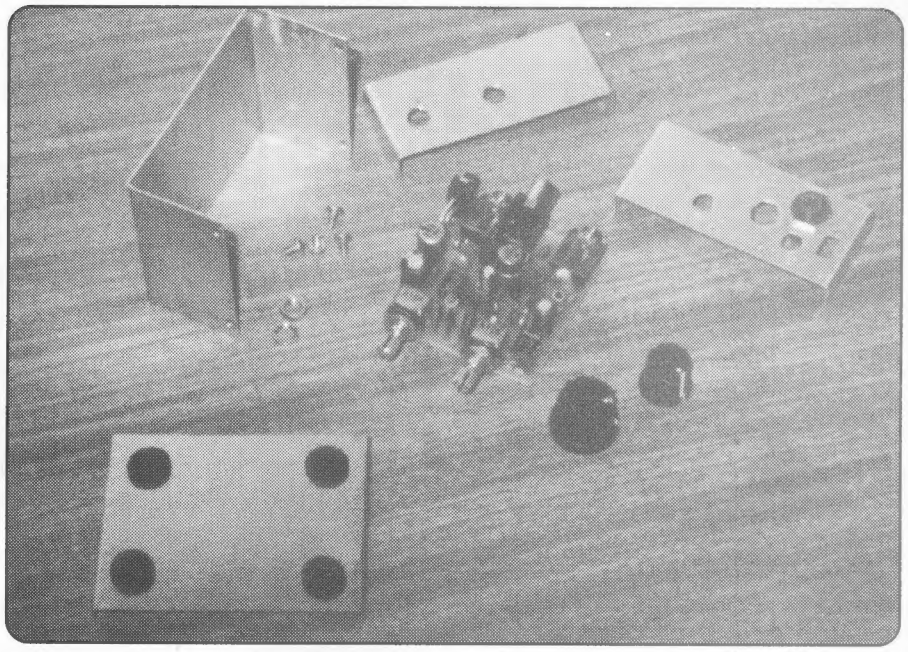

Figure 5. Photograph of the loaded board and four "U" shaped panels. Note the rear panel has the optional power socked assembled on it, while the bottom panel has four rubber legs attached.

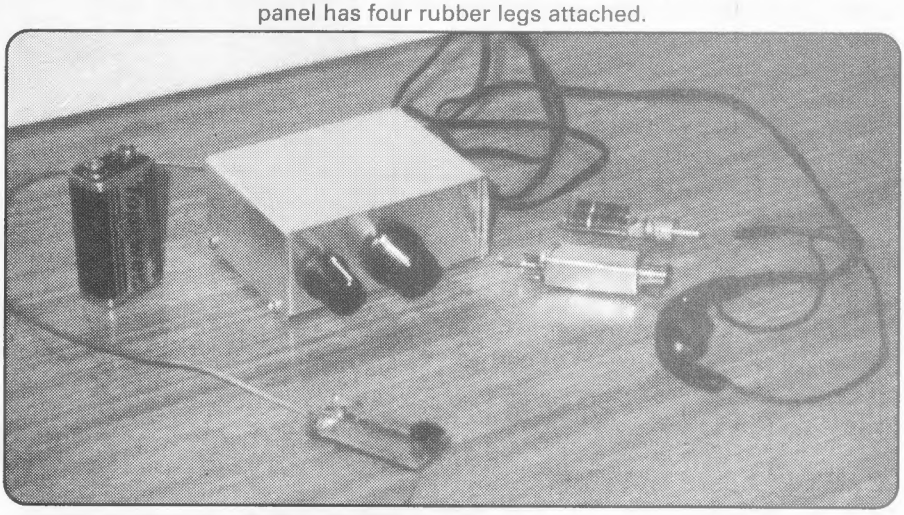

Figure 6. The completed Bare Bones, with internal battery, for portable operation showing the miniature key, Walkman ear plugs, antenna matching unit and 50 ohm dummy load.

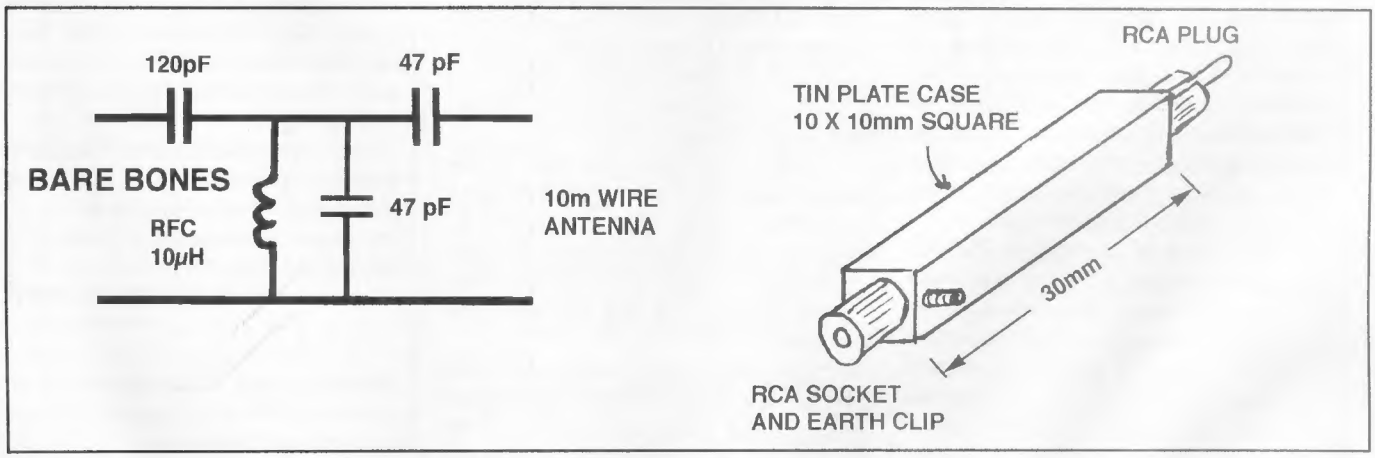

Figure 7. Fixed antenna matching unit for a10 metre wire antenna.

space for an in house battery, while (c) relies on an external power source.

Potentiometers

P1 10k log JC - RP8610
P2 10k lin JC - RP8510

Semiconductors

IC1 NE602 or 612
IC2 LM386
Reg 78L06
T1 2N3866
T2 Any GP Si NPN transistor (2N3904 used) See note for R9.

D1 Any GP Si low signal diode(1N914 used)
D2 Same as D1
D3 BB212 Varactor diode

Other

RES Ceramic resonator 3.85MHz RS - 656-170
Jack1 Stereo socket 3.5mm A - P0092
Jack2 Stereo socket 3.5mm A - P0092
ANT RCA PCB socket A - P0208

SW PCB mount slide change over switch A - S2071

Optional

Panel socket for external power (DS - P1657 used)

Suppliers

A Altronics
DC Dick Smith
JC Jarcar Electronics
RS Radio Spares

ar

Silent Key

Arthur John Brown VK2IK

10/12/14 – 24/2/01

by John Lego, VK3BUI

Sixty-seven years is a long time to be a radio amateur. My childhood recollection of Arthur's "shack" at Epping in the 1950s was of a place of magic and wonder. Compressed into a room probably not more than one and a half by two meters, was wall to wall, floor to ceiling, radio. There was a workbench too! A few years later I was able to listen in on regular QSOs between Arthur, his colleague George, VK2AYG, and Arnold in Toorak on AM. Thus inspired it was a privilege to finally join Arthur and George on 40m many years later.

Arthur writes that it was during his secondary schooling he came across a publication "The Modern Boy" where there were articles on wireless, photography and travel. These topics were to interest him for a lifetime.

It was during his five year apprenticeship with Bushells Tea as their first Electrical Apprentice, in February 1934, that he gained his Amateur Operator's Certificate of Proficiency. I well remember him telling me of the thrill of working the ZLs using just 2 watts from a home brew transceiver at his Earlwood QTH.

In 1938, Arthur traveled to Britain where he worked with TV and later with the Army Signals Establishment. Returning to Australia in 1940 he joined the RAAF where his job was to ensure that the standards for electrical equipment including radar, made under contract at various Sydney factories were being met.

Arthur Brown operating VK2BST at Sydney Technical College, Dec 77.

Arthur joined the Department of Technical Education (NSW) in 1947. There he taught electrical, radio and subsequently TV trades courses. In 1973 he retired as Head Teacher, School of Television and Electronics, at Sydney Technical College, Ultimo.

In 1950 Arthur commenced a 3 year project to construct a one hundred valve electronic organ. A masterpiece of electronics in its day this organ was also a beautifully crafted piece of furniture. It was donated to the Powerhouse Museum in 1996.

Arthur continued to operate from his QTH at Alan Walker Village, Carlingford until October 2000. He is survived by his second wife Dorothy, his three children and nine grandchildren.

Technical interests and achievements made up but one strand of a busy and fulfilled life. Like a 3 core power cable there were, for Arthur, two other most important strands, family and church.

In 1997 Arthur wrote:

"I consider that over the years I have had an interesting and fortunate life and have been blessed with two happy marriages. I have also enjoyed the Christian faith throughout and the adventures of travel."

ar

Correction:

I noticed the Silent Key of David Brain VK3ADD in February A.R. David's surname was 'BRAIN' not 'BRIAN' as printed. As one whose surname is also Brain, I find it interesting that people seem compelled to correct what they believe to be a spelling error in my own name (couldn't be Brain - must be Brian??).

Since Dave can't correct the matter I thought I would let you know that his name was in fact B-R-A-I-N. Perhaps a correction in A.R. might be appropriate.

73 de Gavin BRAIN VK3HY
(Member WIA)

Thank you for bringing this to our attention. We stand corrected, and apologise for the error.

Editor

Love and Amateur Radio

Our hobby has "sex appeal" that should attract young people, as Peter Ellis VK1KEP explains.

I like electronics. And today I have realised why I **love** being an Amateur Radio operator. But, first, a little social and linguistic history.

The stoical Aussie or American - anyway, those of English stock - will perhaps on a good day describe themselves as being **fascinated by** or **absorbed in** their hobby. But, I think that you'd be hard pressed to find me someone who describes themselves as IN LOVE WITH or "a love-doctor of" Amateur Radio. Yet, it is precisely this meaning that we should be expecting of ourselves and other Amateur Radio operators.

Let me explain.

My thoughts always seem to turn to radio between other thoughts of work, family, etc. It's my organic form of a computer's "multi-tasking environment". My wife even understands that about me.

The intricacies of radio technology often elude my understanding, yet I have been an electronics enthusiast since I can remember. Understanding parents bought me a hobby electronics kit in early Primary school. My earliest memory of Amateur Radio was around that time, in the '60s, going to the house of a family friend and being shown his radio room. It's something I still remember vividly. He demonstrated cross-band duplex 2m/70cm across town, using valve equipment he had built himself.

Interest was maintained during science courses at High School as puberty took its course. I did introductory electronics in early tertiary studies. It was there that I met an instructor, an Amateur Radio operator, who later sold me his complete station rather than moving it interstate, and I still have it all. It includes his old ARRL and RSGB handbooks that I read cover to cover so I was soon able to sit and pass the 5wpm Morse and full Theory. The day I visited the licensing office in North Sydney, they told me mine was the first K call in NSW and possibly Australia. I was in love with radio.

That the early RSGB Handbook[1] is very definitely dry of emotion! Our American colleagues via their ARRL handbooks were a little more forthcoming. They stated and even romanticise a little in "The Amateur's Code: The Amateur is Considerate... Loyal... Progressive... Friendly... Balanced... Patriotic..." and looking at it, this describes love!

The Handbook said that, "Although as old as the art of radio itself, amateur radio did not always enjoy such prestige. Its first enthusiasts were private citizens of an experimental turn of mind whose imaginations went wild when Marconi first proved that messages actually could be sent by wireless."[2]

The role of 'public service' in Amateur Radio was there, too. I feel that public service - of helping others to have a "fair go" - is love in action in the community.

Later, the ARRL comments on making new friends - "people with common and yet widely varying interests, able to exchange ideas and learn more about each other...."[3]

Enough of past loves.

I was reading a book today and a paragraph leapt out at me.

'Amateur' has come to mean 'non-professional' or 'unpaid'. But the word is derived from the French *aimer* ('to love' [verb]) and literally means someone who 'loves' what they do. The true amateur, then, is someone whose attitude to [whatever] never loses sight of [wanting to experience the joy of what they are doing.] [4]

This was in a book describing how we should feel freedom in our enjoyment of and expression in playing or listening to music, also a love and pastime of mine. Yet, I quickly realised that the principles are the same. It is the very freedom that love gives us, to receive assistance of another and reciprocate by feeling free to give of our best and not be judged, that typifies the Amateur spirit.

I looked up some other references.

am'ateur, noun. One who is fond *of*; one who cultivates a thing as a pastime. Hence amateur'ISH adjective, amateur'ishLY adverb, amateur'ishNESS amateur'ISM, nouns [French from Latin *amatorem* (*amare* love, see *amor*)][5]

hobb'y, noun. Favourite subject or occupation that is not one's main business... [Middle English *hobyn, hoby,* a by-name of *Robin*]

pa'stime noun. Recreation; game, sport [from PASS + TIME]

A French-English dictionary gave me enough to know that between the English and the French, there should be no confusion as to the meaning of Amateur Radio.

lover noun *amant* masc.; (amateur): a lover of *un(e) ami(e) de*; *un(e) amoureux(euse) de.*[6]

radio noun *radio* fem., on the ~ *a la radio*; station *station* fem. *de radio.*

Hence, our French Amateur Radio colleagues might describe themselves as having a *station de radio d'amateur*, and being *une amie de radio* or saying of themselves merely *J'aime le technologie a la radio.* I hope that these double-meanings are plain.

Needless to say, this insight into the Gallic word carrying over into English now offers us a potent excuse to throw out our chest, inflate at least our egos, and say with great pride and as much of an air of mystery as you can muster, "**I'm a great lover *and* an Amateur Radio operator**!"

Now, what was that about Amateur Radio and its image not be "sexy"? Amateur Radio can speak every language, even love!

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[1] "The Radio Communications Handbook" (1968, 4th Edition), RSGB

[2] "The Radio Amateur's Handbook" (1975), ARRL, p7

[3] "The Radio Amateur's Handbook" (1980), ARRL, p1-1

[4] "The Inner Game of Music" (1986), Barry Green with W. Timothy Gallwey, Pan Books, p78

Making Holes in Sheet-Metal

Drew Diamond, VK3XU 45 Gatters Rd., WONGA PARK, 3115

There are few radio/electronics projects that do not involve making holes in sheet aluminium, brass and plastics. For small round holes, up to perhaps 6 mm, ordinary "jobber" twist drills are usually adequate. Larger, and odd-shaped holes can be a little more tricky. Let me describe a few effective methods of tackling these.

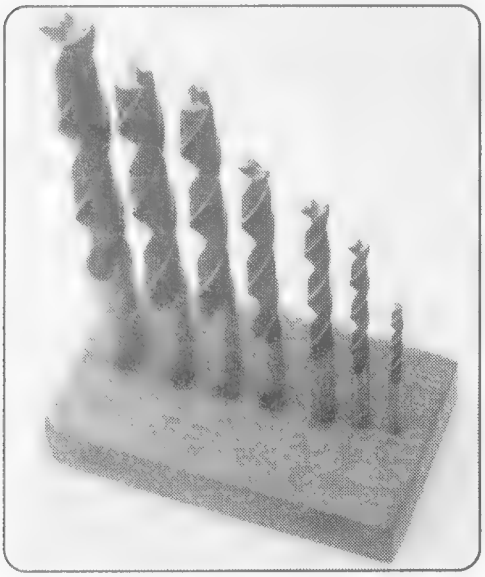


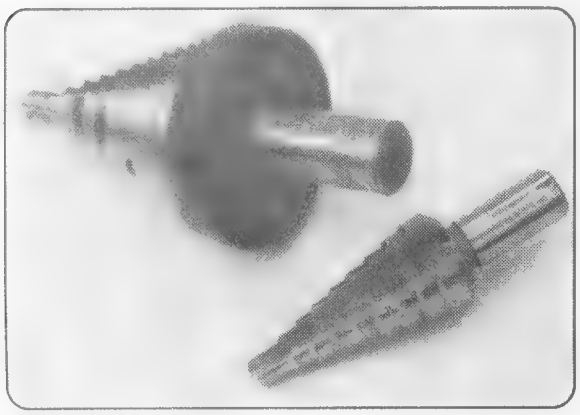
Photo 1: Brad-point drills

Before we go further, it is strongly recommended that the following power drilling operations be performed on a drill-press/bench-drill, with the job firmly clamped upon the drill-table to prevent movement. If you do not own, or have access to a drill-press, an ordinary hand-held variable-speed electric drill will serve. However, great care must be exercised so as not to over-load the motor. Always wear approved safety specs or goggles when using any kind of power tool- make it such a habit that you feel naked without them.

The job should be accurately marked-out with a scriber to show where all holes shall be. To prevent drill drift, a centre-punch indent must be applied exactly at the intersection of the mark-out lines. To avoid error, it is good practice to note the final hole size adjacent to the mark.

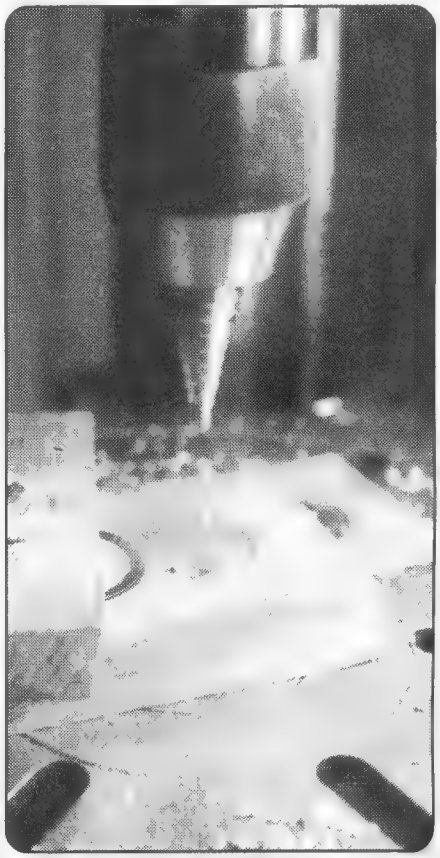
When working with sheet-metals, less than say 2 mm thickness, holes larger than about 6 mm can turn out a bit raggedy, or we may get a triangular hole, even when the job is clamped firmly and backed with hard timber. The reason is that the drill point breaks through the material before the straight part of the drill has entered the work, so the point is free to wobble around- resulting in an irregular hole. One effective way of making nice round holes is to use 'pilot-point' or 'brad-point' drills (see Photo 1). The latter are intended for wood-working, but lend themselves very well to soft metals (such as aluminium) and plastics. In use, the pilot point enters the work first, which provides a stable pivot,

Photo 2: Hole punches



◀ Photo 3: Step-drill bits

Photo 4: Step drilling ▶



so that when the outer cutting edges enter, an accurate, round, and almost burr free hole is produced. Such tools permit holes with overlapping circumferences to be drilled, as will be described later (see also Refs 1 and 2).

One of the more traditional tools for making round holes is the "chassis-punch" or hole- punch (Photo 2). A pilot hole is drilled, then the guide-pin is inserted through the hole, and the punch is either struck with a hammer, or compressed in a vice. They make a clean round hole with very little burr. However, individual punches and punch sets are quite costly- when available.

Step-drill bits (Photo 3) are a relatively new idea. To ensure that the required step size is not exceeded, it is a good plan to mark- with felt-tipped pen, around the appropriate diameter upon the bit. A typical drilling operation is depicted in Photo 4. Note firm G-clamping and use of scrap wood blocks for protection of the drill table and the job. A similar tool is the 'cone-drill', which is used in a like manner.

An extremely useful tool is the tapered hand-reamer, pictured in Photo 5. Makes a clean hole with little burring. A hole slightly smaller in size is made first, then hand-reamed to exact final diameter, as depicted in Photo 6. Generally used as a follow-on after step or brad drilling, or round filing under-size. Incidentally, a de-burring tool may be fashioned from an old triangular file; grind the teeth off all three faces and fit into a file handle. The tool is inserted into a burred hole at about 45 degrees, where the burr may be shaved off.

When I was a lad with few tools, all my large holes were made using the good old "chain-of-holes" method, depicted in Photo 7. With care, a brad-drill may be applied inside the marked circumference so that their edges just touch, or overlap slightly. The waste is broken out, then the hole finished to required diameter with a half-round file.

A "nibbler" (Photo 8) is useful for making round- or any other shaped hole. I find that it is generally best to nibble about 1-2 mm inside the required dimension at first, then go round again, this time bringing the front of the blade right up to within "half a bee's dick" of the marked line (Photo 7), finishing off to exact size by filing.

We can probably thank electricians for making the hole-saw (Photo 9) so popular. The job must be firmly clamped upon the drill table, as depicted in Photo 10. Use slowest drill speed setting. A light oil lubricant, such as sewing-machine oil, or auto transmission fluid will aid things considerably. The resulting hole can be pretty raggedy, so a hole slightly under-size is to be preferred, which is then cleaned up and brought to required size with a half-round file.

Lastly, may I introduce my little mate the "rod-saw". Fits into a standard hack-saw frame. A hole must first be drilled inside the waste to admit the blade lug. The saw is then plied in the usual way,

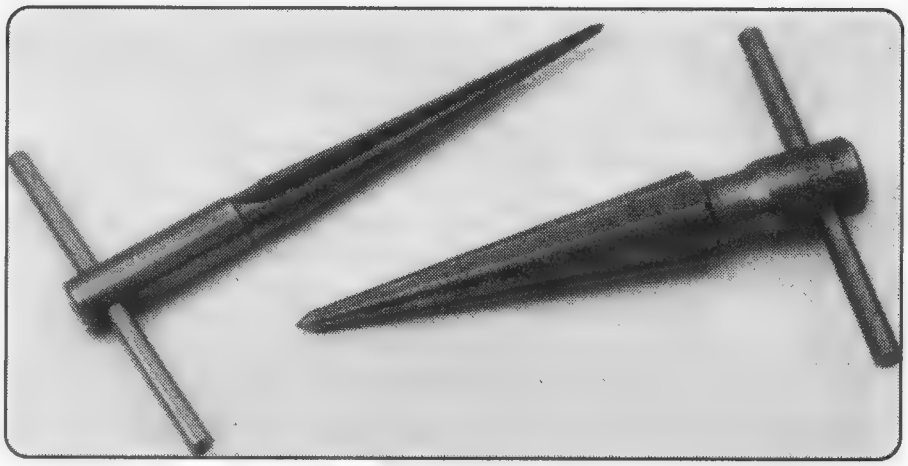


Photo 5: Hand-reamers

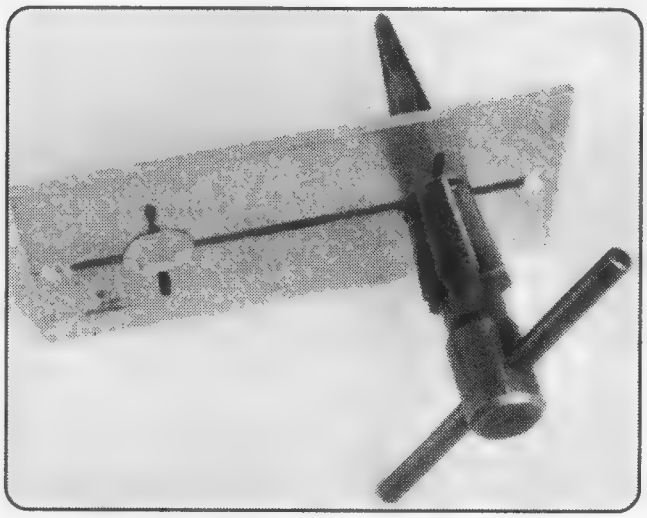


Photo 6: Hand-reamed hole

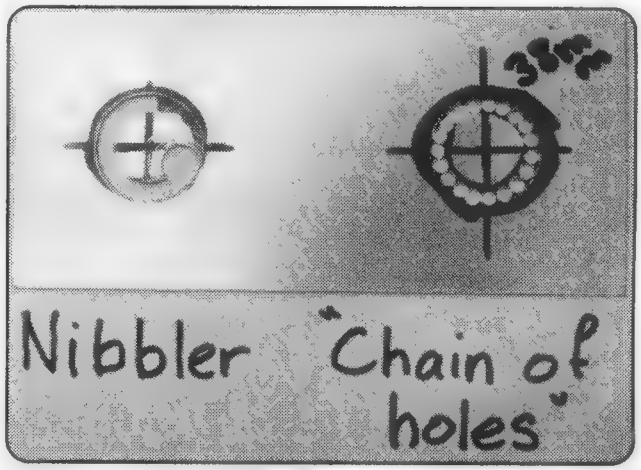


Photo 7

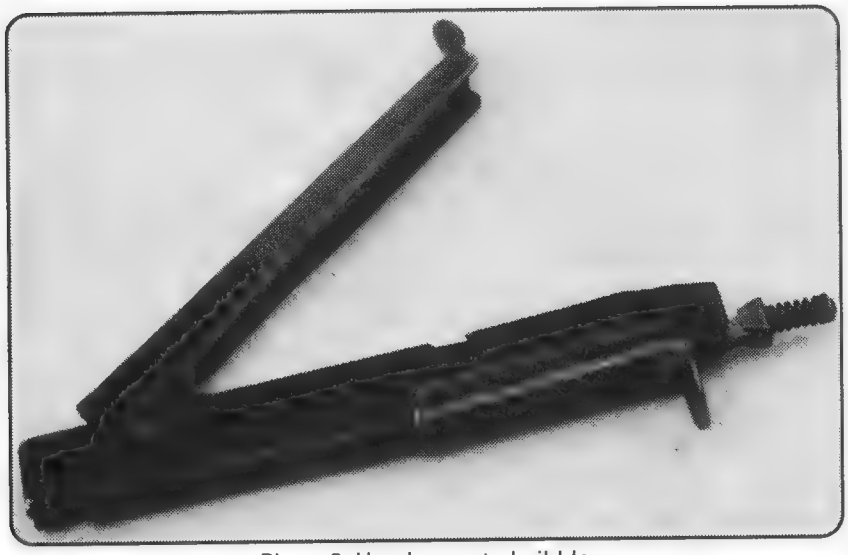


Photo 8: Hand-operated nibbler

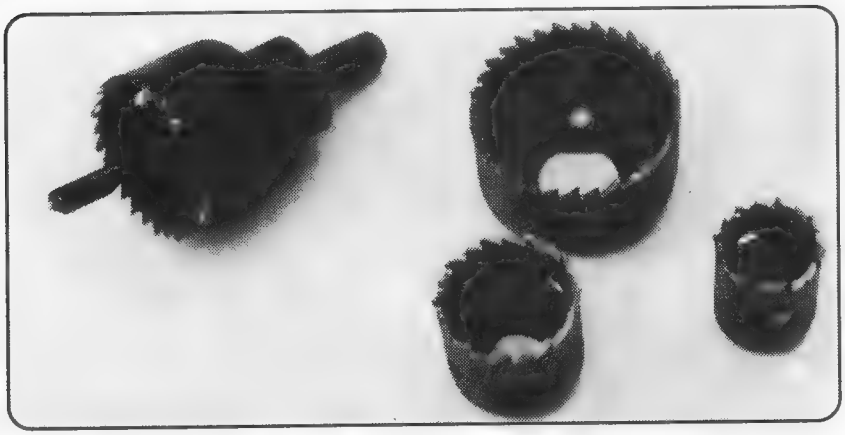


Photo 9: Hole saws

Photo 10

as depicted in Photo 11. Clean up rough edges and bring to required size by filing.

Tool Suppliers Punches, step and cone drills, nibbler, hole-saws and tapered hand-reamers are generally available from suppliers to the electrical/ electronics trade- for example; Radio Parts (03 9329 7888), Radio Spares (1300 656 636), Farnell (02 9645 8888), Jaycar and Dick Smith Electronics. Brad-drills, hole-saws and rod-saws available from many hardware suppliers and general tool merchants. In addition, for Melbournians, try; Gordon Franklin (tool merchant; 03 9887 8204) and Wantirna Sunday Morning Market (cnr Boronia Rd & Mountain Hwy, Wantirna). For mail-order, try McJing Tools (02 9789 3851)- catalogue available.

References and Further Reading

1. "Modified Twist Drills for Sheet Metal"; Diamond, AR July '95.
2. "Sheet Metal Drills"; Smith, Model Engineer issues #3851 and # 3853.
3. "Large Holes in Sheet Metal"; White, G3SEK, Rad Com Oct '93.
4. Model Engineering- A Foundation Course; P. Wright. Nexus Books, pp 225, 226 (excellent book- also applicable to radio/electronics metal-work operations).

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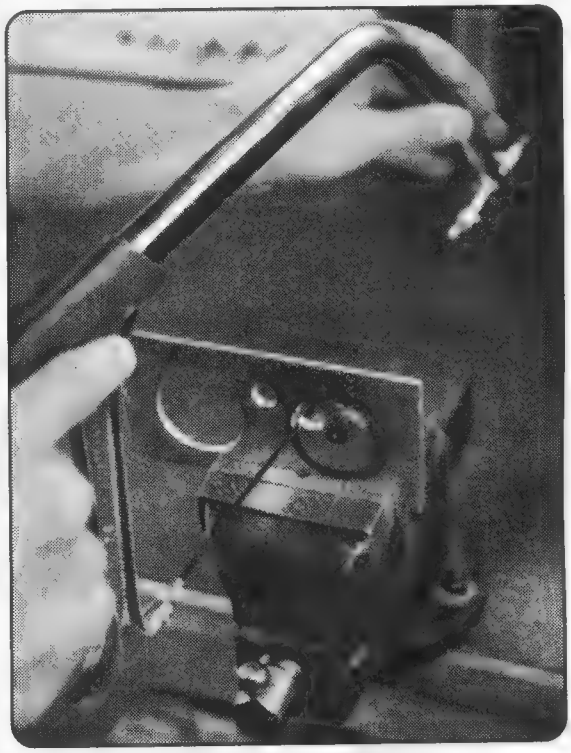

Photo 11: Rod-saw

Nikola Tesla

The First Radio Amateur and Real Inventor of Radio

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At the stroke of midnight when July 9 became July 10, 1856, Nikola Tesla was born. Within the first 26 years of his life he had conceived the rotating magnetic field principle. This discovery for mankind made possible the generation and distribution over long distances of virtually unlimited electrical energy in the form of 50 Hertz AC.

The nature of this benevolent genius was such that he had no further interest in low frequency work, so he moved on to explore the world of high frequency phenomena. By 1890 he had conceived his famous "Tesla coil", still used as a major component in numerous electronic devices. By 1893 he had conceived, explained, and demonstrated the "Four tuned circuits", making possible the theories of Maxwell and Hertz on the transmission of intelligence. The circuits were tuned to resonance with each other, two on the transmitting side and two on the receiving side using Geissler tube detector. His apparatus used the first antenna, as well as a ground connection, plus an antenna-ground circuit containing inductance and capacity. Also conceived was the adjustable inductance and capacity circuit for tuning. In 1893 he made the first "wireless" transmission before the National Electric Light Association in St Louis, and it is this essential understanding that exists today in all modern radios. These principles served as the foundation for his US. patent that eventually had priority over Marconi's basic patents.

Most amateurs are unaware of what happened on 21 June 1943: The United States Supreme Court made a landmark decision that essentially settled the long dispute between Marchese Guglielmo Marconi and Nikola Tesla. The court's decision on Case No 369, identified as "Marconi Wireless Telegraph Company of America vs. United States," rendered invalid Marconi's basic patent No. 763,772 dated 28 June 1904. Tesla's patent No. 645,576, of 20 March 1900, and its subdivision patent for apparatus No. 649,621 dated 15 May 1900, had priority. The court also cited John Stone's patent No. 714,756 dated 2 December 1902, incorporating greater tuning selectivity, and Sir Oliver Lodge's patent No. 609,154 dated 16 August 1898, providing variable inductance tuning.

Our modern-day understanding of radio is very different from what people knew in those early days. Therefore, it is essential to state a definition of radio that encompasses only that which is indispensable as an embryonic commencement of our present day technology. Lack of understanding in this embryonic area is where most modern technologists and historians become confused, and understandably so. Nevertheless, without the conception of the radio "embryo," those basic elements underlying its fundamental principles, there would be no radio; and without a delimitative definition, there can be no definitive decision on who really invented those basic elements of our modern day radio technology.

Will McGhie's one metre high Tesla coil (AR March 2001, Repeater Link)

The following definition served the Supreme Court well because it was then able to render a just decision: "A radio communication system requires two tuned circuits each at the transmitter and receiver, all four tuned to the same frequency." It is this "four-tuned circuit invention" that Tesla patented, published, and explained. This enabled the high court to give him priority for these necessary basic elements of "wireless," without which there would be no foundation for future advancements.

Naturally, many who followed Tesla made progressive refinements in the technology thus developing it to its present day state. Most of its tend to attribute the birth of radio to those early technologists who made the first refinements, but it was Tesla who had laid the foundation. Historians also give great praise, and correctly so, to such men as Maxwell and Hertz for their monumental work in wave theory. Puzzling to many, however, Tesla's greatest contributions, AC power distribution and fundamentals of radio, are either not known or challenged bitterly.

It is easy to understand why most people have a distorted understanding of just who was the real inventor of radio. First, it was the newspapers that hailed Marconi's first successful transatlantic radio transmission; then textbooks followed with their depiction of that exciting event. Both media sources had already raised the flag of victory for Marconi, so it is easy to understand Tesla's dismay—he had done much of the pioneering work.

A similar media blitz is responsible for Thomas Alva Edison becoming a familiar household name. In reality Mr Edison did not create or develop our system of alternating current electricity. History of "The war of the Currents" shows how he fought its adoption bitterly, choosing instead to promote a system of direct

current that had already been invented by others. In short, Mr Edison's brief role in the electrical power industry was that of an entrepreneur who failed, rather than an inventor. It was Nikola Tesla's discovery of the rotating magnetic field principle in 1882 and patented in 1888 that gives us our modern day system of electrical power distribution.

In 1988-89, the writer's students commissioned a bust of Tesla to donate to a large museum (any large museum). After discovering that the Division of Electricity and Modern Physics section of the National Museum of American History made no recognition of Tesla we offered our bust. The curator promptly refused the offer stating that he had no use for it. Later we discovered that the curator was displaying a bust of Edison alongside Tesla's induction motor. He also displayed photographs of the Niagara Falls power plant next to one of its original generators. A large brass inscription plate listed Tesla's patents, but there was no reference to Tesla. In the middle of the display stood a life size replica of Thomas Edison with the caption, "while the Niagara AC plant was being built by Westinghouse, Edison was busy with other important things." The caption did not explain what these "other important things" were, nor why this was relevant to the Niagara AC power plant. Perhaps Mr Edison was still busy catching stray dogs to electrocute at press conferences in a last ditch effort to defeat the spread of alternating current!

The *Smithsonian Book of Invention* is a prodigious 3/4-inch thick book of America's greatest inventors and their inventions. Tesla's name does not appear anywhere in that publication. The writer wonders how such an august institution with all the learned historians in their employ could possibly ignore Tesla's contributions in their chapters depicting the evolution of electric power and radio.

Further evidence of history gone amuck is seen in the Smithsonian's publication, "The Beginning of the Electrical Age." The curator meticulously traces the history of electricity from Volta to Edison, naming 43 significant contributors, yet Nikola Tesla's name is missing. Instead, the curator shows pictures of the Niagara Falls Power project and readers are carefully guided into believing that this was the work of Edison. Yet it was Tesla's polyphase AC system that the power commission adopted and licenses had to be issued to use Tesla's patents. Money for this publication came from the Thomas Alva Edison Foundation. Perhaps this is why Mr Edison's name and various pictures appear so prominently and Tesla's name is missing. History is indeed for sale at the Smithsonian, or so it appears.

Radio amateurs especially should take exception to the flagrant disregard for truth in history that exists in the Division of Electricity and Modern Physics section of the National Museum of American History, within the Smithsonian Institution. Why does the Smithsonian, and the general public as well, have such a biased view of electrical history? The answer is obvious.

Tesla's induction motor, using his rotating magnetic field principle, provides us our worldwide system of alternating current electricity. Few people realize the earthshaking importance of this discovery. Honoured engineers have ranked it to the electrical equivalent of the wheel.

Niels Bohr in 1956 stated, "Tesla's most ingenious inventions and researches have been the fundamental for that development which so deeply influences our whole civilization."

Dr W H Eccles in the *Proceedings of the Institute of Electrical Engineers,* stated, "Tesla was the greatest electrical inventor we have had on our roll of membership; in fact we might go as far as to say that he was the greatest inventor in the realm of electrical engineering."

John Stone in 1917 stated, "Among all those, the name of Nikola Tesla stands out most prominently. Tesla with his almost preternatural insight into alternating current phenomena that has enabled him some years before to revolutionize the art of electrical power transmission through the invention of the rotary field motor, knew how to make resonance serve, not merely the role of a microscope, to make visible the electric oscillations, as Hertz had done, but he made it serve the role of a stereopticon... He did more to excite interest and create an intelligent understanding of these phenomena ... than any one else ... and it has been difficult to make any but unimportant improvements in the art of radio telegraphy without travelling, part of the way at least, along a trail blazed by this pioneer who, though eminently ingenious, practical and successful in apparatus he devised and constructed, was so far ahead of his time that the best of us then mistook him for a dreamer."

Lord Kelvin in 1896 stated, "Tesla has contributed more to electrical science than any man up to his time."

Tesla was recognized by his peers but forgotten by his successors, including much of the amateur community. We depend daily on his wireless creation and the power to make it work; yet the vast majority of our ranks still has a distorted idea of our real benefactor.

Tesla died 7 January 1943, alone in his hotel room at the Hotel New Yorker; surrounded by a world of technological progress he was instrumental in creating. Yet the only monument to his memory in our country is a statue at Niagara Falls, a gift from the former country of Yugoslavia. He is one of only two Americans honoured by the International Electroteclinical Congress in Munich. In 1956, the unit of magnetic flux density in the MKS system was designated the Tesla. Thus, his name is alongside only fifteen others such as Volta, Faraday, ohm, Watt, and Ampere. Joseph Henry is the only other American so honoured.

For those who are old enough to remember, the Smithsonian Institute carried on a similar feud with the Wright Brothers that lasted 45 years. It was not until December 1948, after we had entered the jet age, that its officials finally relinquished their demand to honour Samuel P Langley whose plane did not fly. He was Secretary of the Smithsonian in 1903 when the Wrights flew their plane at Kitty Hawk. Although there is no connection between the Wright Brother's debacle and the historical mendacity suffered by Tesla at the Smithsonian, there is an aspect of relevancy.

At best, the writer hopes to engender enough support from the amateur community to petition Smithsonian Institution officials to honour Tesla. Certainly there is overwhelming evidence that he has earned his place in history in our country's premier museum. At the very least, this issue might stimulate some lively discussions on the ham bands.

Editor's note *This article is reprinted from* Spark Gap Timer *(April 1995) the journal of the Old Old Timers Club of the USA. One amendment was made [50Hz mains]. Some of the claims may be controversial. Publication by the WIA does not imply support or otherwise for any such claims.*

Invisible Antennas

by Ron Holmes VK5VH.
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> "It was something of a shock at the first meeting of the strata management group to discover that only indoor antennas for TV were expected and nothing was to show outside the units except with the permission of the whole group"

When I knew we would be moving to a unit I gave some consideration to the question of antennas. Probably I could put up a pair of phased verticals. I'd had good results with them before and one sees CB type antennas everywhere. At worst I thought, I can put up a good looking TV antenna and use it as a top loaded vertical. It was something of a shock at the first meeting of the strata management group to discover that only indoor antennas for TV were expected and nothing was to show outside the units except with the permission of the whole group. I did not want to draw attention to myself from day one as a potential producer of TVI so said nothing and went back to the drawing board.

When I climbed into the ceiling I discovered that I was reasonably lucky in that we had a tiled roof without that aluminium sheet insulation sometimes seen, and the row of rafters looked suspiciously like an inverted vee beam. On 20 metres perhaps I could do something there?

Without going into all the experiments and trials and climbing up and down I will just report a couple of facts which may be useful to others and go to my present arrangement.

POINT ONE: There will be no close relationship between the resonant frequency of a length of wire in open space and the same wire in your ceiling. The frequency will be much lower due to all the wires and pipes and metal braces etc which share the space under it.

POINT TWO It is very difficult to feed a beam at the centre in your ceiling and get the feedline away at rightangles to the radiator without boring holes in your ceiling and maybe a couple of walls as well. Most XYLs have objections to this sort of thing and if the unit happens to belong to someone else there are further difficulties.

Another matter to take into account is that a beam which points in the direction your unit happens to face may or may not take you where you want to go.

The antenna books tell us that two elements at a spacing from 1/8 wavelength to 1/4 wavelength and fed 180 degrees out of phase will radiate in two directions with a gain of about 3.5 db over that of one element. Normally they are fed at the centre. I did this but had considerable trouble with TVI. Perhaps because the feed line could not be taken away at right-angles. So why not at the ends if that is more convenient? Particularly when the ends were folded back towards one another in any case and the feedline could then come down the side of the house and through the window of the shack.

Of course at the ends there was high impedance so I fed them with a 4 to 1 balun and tuned out what standing wave was left on the coax at my transmatch ATU. Under the tiles the elements, 3 metres apart and each 10 metres long, were attached to rafters for the middle 8 metres and turned back towards one another one metre each end. As I was not keen on high RF voltages on the ends of the elements being loose in the ceiling I took the ends of each element through the tiles and back along the lower edge of a row of them, held in place with bluetack. The balun hung under the tiles out of the weather and the coax came down the wall through the small gap at the top of the bricks.

Incidently my baluns are the simple home-brew type using short lengths of ferrite rod from old broadcast antennas. To my surprise the TVI was greatly reduced by the end feed. In fact, while it still affected our 20 year old main set, the more modern portable we bought for the caravan was quite clear, even though sitting in the shack only a few metres from the transmitting antenna.

Although the "beam" points approximately SE and NW it has a very broad radiation pattern and I get good results from VK4,VK2,VK3,VK6 and VK7 with occasional DX at approximately the same level as a temporary quarter wave vertical in the back yard.

But what about 40 and 80? I could not hang wires in the air but knew from past experience that bricks and tiles were no great hindrance to radio waves. A piece of black insulated wire a quarter wave long on 80 could be run from earth level up the brick wall, through the small gap between the top row of bricks under the eaves, between a couple of tiles, then on top of the black tiles up to the ridge of the roof and along the ridge to the far end of the unit. There the end was secured by gripping it between a couple of tiles. From the ground you would have to be very observant to notice it.

This I did and eventually found that on 80 metres all it needed was a variable capacitor at about 100 pf in series at ground level to tune it with SWR at 1/1 against an earth rod and the metal fence. My regular 80 metre net, which I used to work on a full wave loop,* (See "Hamtenna with the Lot" A..R.. Oct 1987),reported that while not quite as before the signal was very satisfactory to all in VK5 and VK3.

On 40 metres the same wire was an approximate half-wave and therefore would need high impedance feed. Was it possible to use a 4 to 1 balun with one side, (that shared with the coax centre lead), connected to the end of the antenna and the other side to earth.? I had not seen a 4 to 1 balun used like that but it was worth a try. Somewhat to my surprise it not only worked but gave a 1 to 1 SWR at first try. Reports on this 40 metre antenna from all over Australia have almost all expressed surprise that I was not using a normal dipole. As an extra it not only works on 15 and 10, but also on the 30 and 17 metre WARC bands. To my joy this 40 and 80 metre antenna does not cause TVI.! Well, apart from a little on 15 metres.

To save the trouble of changing the tuning unit every time I wanted to move

from 80 to 40 I built the variable series capacitor and the 4 to 1 balun into a small plastic box with a coax connection one end and two good terminals the other. The box sits on a paver to lift it off damp earth and has another on top of it to keep the lid down and protect from rain. The coax from the shack and the antenna and earth remain connected all the time. In the box is a 3 pole 2 way switch which changes all connections from one antenna configuration to the other. The control for this and the knob to adjust the 100 pf capacitor are mounted on the front of the box. I still have to walk round the house to change it but fresh air and exercise are supposed to be good for you.

I am still working on other possibilities for 20 metres, but frankly I doubt if the 80 and 40 metre could be improved on. Everybody who works me says, "Don't touch it!"

I realise that every ham in a unit is likely to have different conditions to contend with.. These antennas may suit your situation but an exact copy will not necessarily work the same as mine does. The main thing is to look for the possibilities and make the best of it. I still envy those with 5 acre blocks, or for that matter with quarter acre blocks, but inventing invisible antennas is a new challenge.

Club News

AHARS Notes

The most recent meeting of the AHARS was the AGM at which the same committee was reelected. Everyone must consider they are doing a pretty good job so "if it ain't broke, don't fix it" is the attitude. There is no doubt that when the members become dissatisfied with a committee they soon make changes.

As is the usual practice, a "Member of the Year" was named by Geoff VK5TY as President. This year the honour was shared between Geoff VK5JB and Grant VK5ZWI in recognition of the sterling effort they put in, on the behalf of all SA amateurs, in the presentation made to a government sub-committee in relation to the height of amateur towers.

After the AGM the members were introduced to the new regulations and the new safety equipment required for anyone climbing a tower, not his own. You may still use your old safety equipment when you climb your own tower but if you are asked to climb the tower of another amateur and wish to be covered by his insurance policy. in the event of an accident, you must be using the required safety equipment and you must know how to use it properly.

Two members of AREG demonstrated all the rigging and gave a very informative talk about the new rules. There were many long faces among the amateurs who had been climbing towers for years. They will have to do some thinking about the situation.

AREG will be conducting a course, later in the year, for anyone wishing to learn all about safety and the new equipment, in more detail. Anyone in VK5 interested in participating could get more information from AREG members or from Geoff VK5TY or Alby VK5TAW, President and Secretary of AHARS.

If you are visiting VK5 get in touch with either of these gentlemen (QTHR the callbook) for information about the AHARS meetings. Visitors are very welcome on the third Thursday of each month.

Did we talk to you in the Field Day? If not, why not? It is good club fun.

Riverland Radio Club Inc

Xmas Pageant

The Riverland Radio Club supported the Renmark Xmas pageant again in December last year; this is the second year that the club has supported the pageant. Last year the club was able to display its new banner which incorporates its logo (see photo) some 30 odd floats were in the parade through the streets of Remark.

The club also held a post Xmas dinner, this year at the Renmark Club over looking the floodlit River Murray. The dinner was not held until later in January to avoid the many celebrations that are held around Xmas time, 21 members and wives enjoyed an excellent meal and Oh! What a view. The evening concluded with a trip on Tony's VK5ZAI and Jill's houseboat the "Nooralie" which was moored in front of the Club, tea and coffee was served by Jill and members wives, a very enjoyable evening was had by all.

Congratulation must also go to three of our club members. Chris Hedger VK5PBI received a Silver Koala for Distinguished Service as a Scout Leader of the Berri group in the Riverland.

David Wilson VK5NAP received a Certificate of Merit for good service as committee of the Barmera Scout group also in the Riverland.

Gary Watt VK5CWP also received a Certificate of Merit for good Service as committee of the Barmera Scout group.

Another member of the club also has been honored with an invitation from NASA to watch the launch of the shuttle Discovery STS-102 with Adelaide born Andy Thomas who will be accompanying mission. Andy will be involved in an EVA from the ISS space station. Tony Hutchison VK5ZAI and his wife Jill leave for the USA on Tuesday the 27th Feb. to be at Cape Canaveral for the launch on March 8th, Andy's father Adrian and his stepmother Gill will also be at Cape Canaveral for the launch.

Doug Tamblyn VK5GA

Amateur Radio in the Australian Alps

Cover Story

Stephen Warrillow VK3JNH

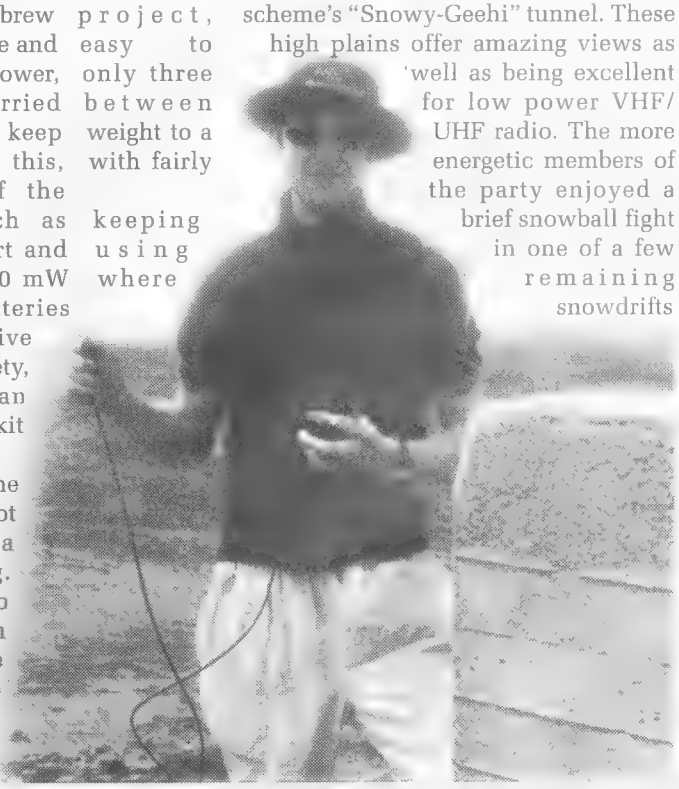
Australia's alpine region covers an area from Gippsland in southeast Victoria through to New South Wales and the ACT. While only making up a very small part of Australia's landmass, this range of mountains contains unique flora and fauna as well as regions of exceptional beauty. The alpine areas include high plains and peaks towering over deep river valleys - ideal for VHF and UHF radio, as these high points offer line-of-sight pathways to the horizon in nearly every direction. Most of these remote high points therefore have excellent repeater access, even with low power and compromise antennas. Standing on peaks such as Mt. Feathertop or Mt. Kosciusko, one can readily work stations back in Melbourne or Sydney on only a few watts, using distant repeaters. As a keen (if somewhat infrequent) bushwalker, I have had a great deal of fun operating on two metres with a handheld from some of the highest parts of Australia. On nearly every occasion, there have been amateurs willing to have a quick contact via their local repeater with a faint and noisy signal coming from a handheld on the top of a mountain.

In January this year my brother, Gerard (VK3HFI), arranged a trip to Mt. Jajungal in the northern section of the Kosciusko National Park. Compared to the southern areas of the park, this area is seldom visited and is best accessed by foot. After deciding on what turned out to be a fairly ambitious route, we coerced a few others to join the party and made the necessary preparations. These included arranging gear such as tents, packs and stoves, organising food and meals and obtaining "leave passes" from our families. In total we would be camping out for four nights, so everything required for the five days on the track had to be carried. Anyone familiar with climbing a steep and rocky mountain track will understand the importance of prioritising the contents of one's pack to keep weight to a minimum- packing the extra block of chocolate or bottle of port may seem like a good idea back at home, but halfway up a mountain slope every kilogram counts!

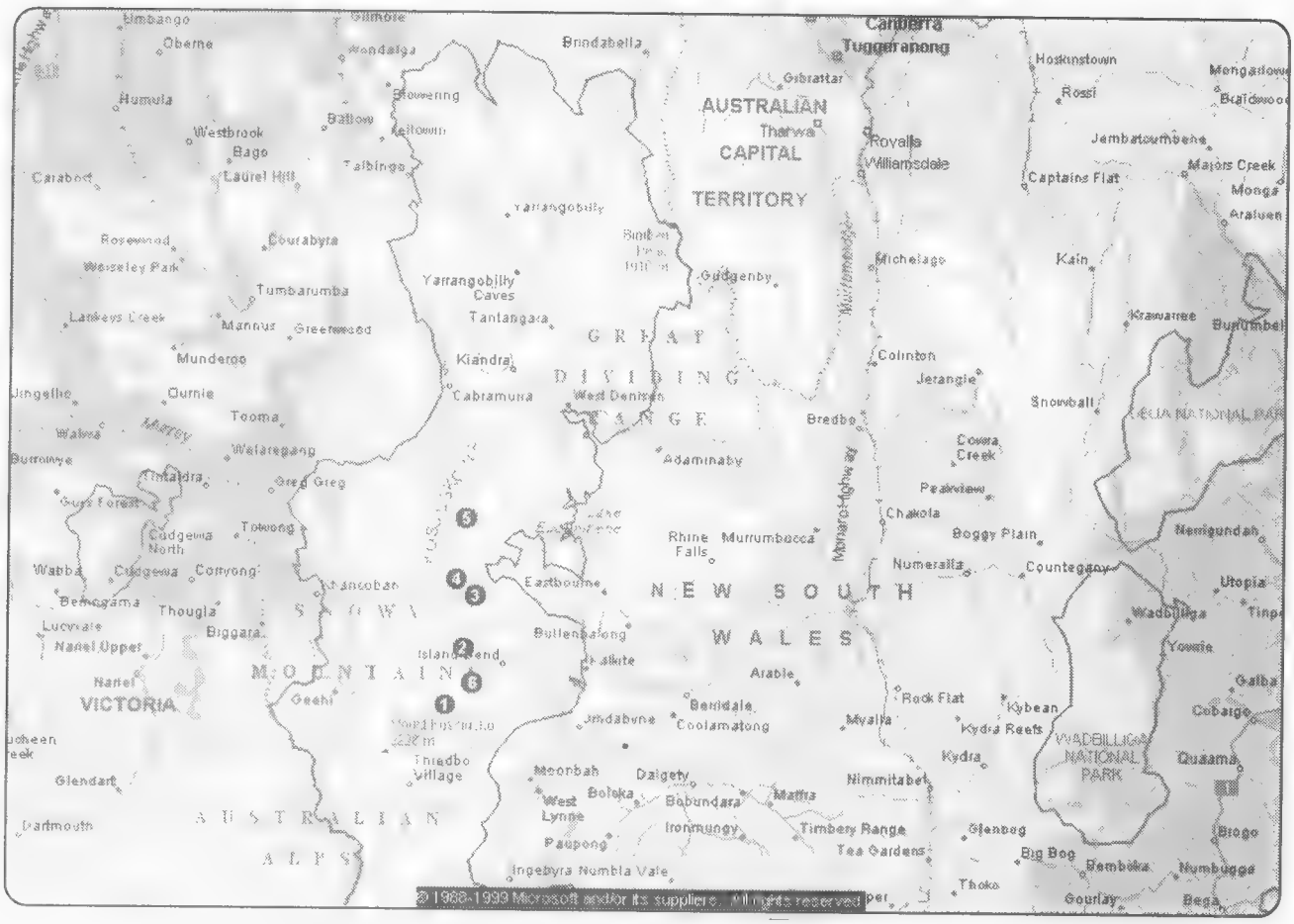
Navigation gear included detailed maps, compass, an altimeter and the now indispensable GPS. In terms of radio gear, we took two handhelds; a two meter FM monobander and a 6/2/70 cm FM tribander, each with five watts maximal transmit power. The tribander was also capable of extended reception and enabled us to listen to commercial AM and FM broadcasts to keep in touch with weather changes and fire warnings. Antennas were basic and light; both radios had their respective "rubber ducky" type antennas which are light and rugged, and we also took a home brew two metre ground independent whip made of coax off- cuts, broken fishing rod and heat- shrink tube. This antenna possessed all the best attributes of a home brew project, being cheap, reliable and easy to make. In terms of power, only three batteries were carried between the two radios, to keep weight to a minimum. Despite this, with fairly judicious use of the transceivers (such as keeping transmissions short and using low power e.g. 100 mW where possible), the batteries lasted the entire five days easily. For safety, we also had an extensive first aid kit and EPIRB.

Leaving Melbourne for the hills on a hot afternoon is always a great feeling. Travelling in two vehicles, we kept in touch with one another on two metres (simplex and on various repeaters) and enjoyed numerous contacts with locals as we travelled north-east along the Hume Freeway and then east to Corryong. After crossing the Murray into New South Wales, we made our way to Khancoban and proceeded to climb along the Alpine way toward Geehi where we spent the first night.

The next day, our trip really began. After picking up the sixth member of the party in Jindabyne, we drove to the Guthega Dam and parked the cars. After last minute checks that all was packed, we farewelled the cars and started up the first of many steep ascents toward Mt. Tate. Coming out of the tree line for the first time and seeing the view across toward the main range of Kosciusko, we briefly forgot about the heavy packs, aching legs and march flies to admire the view. The next several hours involved steady progress along an area known as the "Rolling Grounds", beneath which passes the hydro scheme's "Snowy-Geehi" tunnel. These high plains offer amazing views as well as being excellent for low power VHF/UHF radio. The more energetic members of the party enjoyed a brief snowball fight in one of a few remaining snowdrifts



VK3HFI standing on the summit of Mt Jajungal with VX-5R and home brew 2m antenna.


Canberra
Tuggeranong
AUSTRALIAN
CAPITAL
TERRITORY
Tharwa
Royalla
Williamsdale
Gibraltar
Brindabella
Hoskinstown
Rossi
Jamberoo
Captains Flat
Majors Creek
Monga
Araluen
Michelago
Kain
Kiamee
Burrumbel
Colinton
Jerangle
Snowball
Bredbo
Cooma Creek
Peakview
Chakola
Boggy Plain
Nerigundah
Numeralla
Countegany
Utopia
Wadbilliga
Yowrie
Galba
Cobargo
Quaama
Brogo
Bega
Gourlay
Bemboka
Nimmitabel
Timbery Range
Tea Gardens
Glenbog
Big Bog
Thoko
Rock Flat
Kybean
Myalla
Kydra Reefs
Kydra
WADBILLIGA NATIONAL PARK
Bendale
Coolamatong
Arable
Jindabyne
Bullenbalong
Eastbourne
Rhine Falls
Murrumbocca
Adaminaby
Kiandra
Cabramurra
West Denison
Guggenby
Yarrangobilly Caves
Tantangara
Yarrangobilly
Tumbarumba
Courabyra
Rosewood
Wanderley Park
Laurel Hill
Bago
Westbrook
Humula
Carabost
Talbingo
Kellowin
Bellow
Blowering
Wondalga
Oberne
Bimbango
Munderoo
Ournie
Tooma
Walwa
Burrowye
Walaregang
Greg Greg
Tintaldra
Towong
Cudgewa North
Cudgewa
Corryong
Wabba
Benogama
Thougla
Biggara
Lucyvale
Nariel Upper
Nariel
VICTORIA
Geehi
Thredbo Village
Glendart
Dartmouth
Ingebyra Nimbla Vale
Paupong
West Lynne
Bolaka
Bobundara
Ironmungy
Maffra
Meanbah
Dalgety
Mallacoota
Eden
Tathra
Bermagui
Cobargo
Narooma
Moruya
Batemans Bay
Nowra
Kangaroo Valley
Bundanoon
Moss Vale
Bowral
Mittagong
Goulburn
Yass
Cooma
Jindabyne
Tumut
Gundagai
Wagga Wagga
Albury
Wodonga
Corowa
Tocumwal
Deniliquin
Hay
Balranald
Wentworth
Broken Hill
Cobar
Nyngan
Bourke
Lake Eucumbene
Lake Burrinjuck
Lake Hume
Lake Cargelligo
Lake Brewster
Lake Cowal
Lake Mulwala
Lake Wyangan
Lake Wyangala
Lake Jindabyne
Lake Tantangara
Lake Blowering
Lake Talbingo
Lake Tumut
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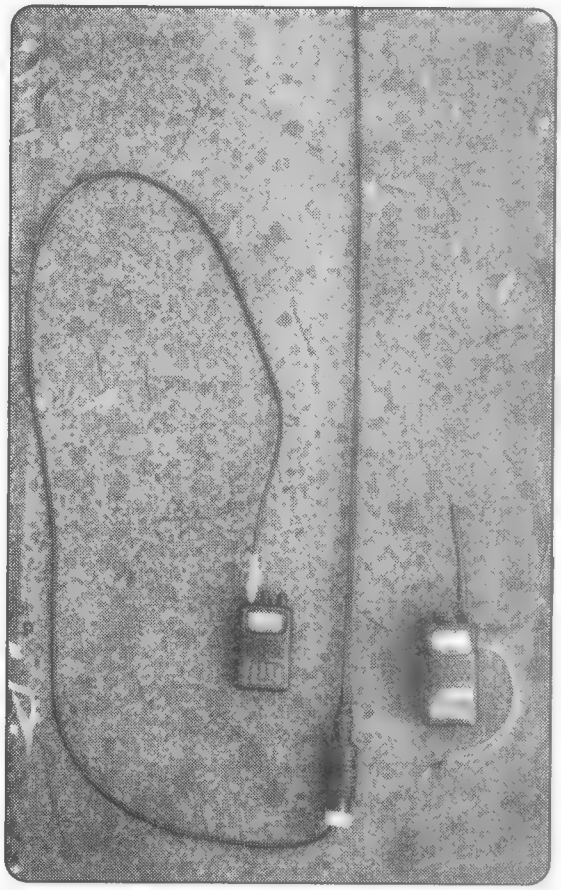


Yaesu VX-5R and F10-R. The VX-5R is attached to the homebrew 2m antenna

VX-5R and FT 10-R

gear back at Grey Mare Hut as a sort of base camp. This left our load much lighter, and made the final assault on the summit a great deal easier. With exceptional weather, we wandered along the undulating track toward a broad based plateau upon which the imposing twin peaked summit sits at 2061 metres ASL. After several creek crossings we arrived at the turn off to the summit. From this point it was a steep five hundred meter climb up to a high plateau and the summit beyond. The final scramble to the summit is a little precarious, requiring both hands to haul oneself over a steep rock face, but arriving at the peak makes all the effort truly worthwhile. In every direction, the view was exceptional, with the Main Range of Mt. Kosciusko rising to the south about forty kilometres away. After catching our breath and taking a few photos it was time for radio. In the hour we remained on the summit, we were delighted to make many great contacts via several repeaters on 2m and 70 cm. Via the Mt. Ginini 70 cm repeater link through to Sydney we chatted to an operator handheld in the city! The highlight, however, was provided by two amateurs in the Wagga Wagga area who helped contact my wife back in Melbourne and allowed me to fulfil my promise to call on her birthday. Six metres was unfortunately unproductive, with no contacts made on this band. After a quick lunch, it was time to make the trip back to Grey Mare Hut where we would spend another night and drain our bulging blisters.

The next morning was mild, with a mystical lake of mountain mist filling the valley below the hut. After breakfast we broke camp and walked back to Valentine Hut appreciating our now lighter packs (we had ensured everyone ate every scrap of food allocated to each main meal for the previous two days!). We had allowed an additional day to walk back, but with our reduced load to carry and the enthusiasm gained from reaching the peak, we decided to continue walking. From Schlink Pass we headed back along the Munyang River to the power station, where we had left one of the vehicles. By mid-afternoon, with feet burning and shoulders aching we arrived back at the car and rapidly divested ourselves of our packs. Nobody required much convincing to make the trip back to Jindabyne for a shower and some liquid refreshment!

We covered just under one hundred kilometres of rugged walking over four days, and despite increasing fatigue toward the end, it had been a great walk. Taking the radio gear added another dimension to the trip and also provided an element of safety not otherwise available. It was nice to know that if required, we could reliably obtain assistance in an emergency. At virtually every point along the trip, there were amateurs keen to take an interest in our trip and provide helpful advice such as regional weather forecasts. Carrying the amateur gear had certainly been worthwhile! Now that the blisters have healed, perhaps it's time to start planning the next walk and pre-arrange some six metre contacts.....

Stephen Warrillow VK3JNH has been an amateur for nearly four years and is novice course coordinator for the North-East Radio Group in Melbourne.

How much do you know about your WIA?

Peter Parker VK3YE

You're a member, but how much do you really know about your organization and the amateur activity it supports? Try this quiz and find out.

Like the Regulations paper there are 30 questions to answer. You have 30 minutes. Use of reference books, magazines, computers and pocket organisers is not permitted. Answers appear on page 55. Remember, no cheating!

1. **Which three Australian radio pioneers have amateur radio transmitting contests named after them?**
   a. John Moyle, Earnest Fisk, Alan Shawsmith
   b. Merv Stinson, Max Howden, HK Love
   c. John Moyle, Ross Hull, Harry Angel
   d. Earnest Fisk, Alf Traegar, Hiram Percy Maxim
2. **In which year does/did the WIA turn 90?**
   a. 1990
   b. 2000
   c. 2002
   d. 2010
3. **Who heads the Australian Communications Authority?**
   a. Tony Shaw
   b. Michael Owen
   c. Christine Goode
   d. Alan Jordan
4. **AM is prohibited by law on which amateur frequency segment?**
   a. 14.070 – 14.095 MHz
   b. 146 – 148 MHz
   c. 28.0 – 28.2 MHz
   d. 50.000 – 50.300 MHz (in VK1, 2, 3, 4 & 7)
5. **If you were listening to 14.175 MHz at 0130 UTC Sundays, which WIA Divisional News bulletin would you be hearing?**
   a. VK2WI
   b. VK6WIA
   c. VK3BWI
   d. VK4WIA
6. **The WIA 2000 Federal Convention was held in which city?**
   a. Canberra
   b. Sydney
   c. Darwin
   d. Melbourne
7. **Who is the current WIA Federal ARDF Co-ordinator?**
8. **For AR readers, who was the 'Voice by the Lake'?**
   a. David Wardlaw VK3ADW
   b. Bill Rice VK3ABP
   c. David Minchin VK5KK
   d. Eric Jamieson VK5LP
9. **Which Division won the 1999 Remembrance Day Contest?**
   a. VK7
   b. VK4
   c. VK5
   d. VK3
10. **In which state is the Moorabbin and District Radio Club based?**
    a. Victoria
    b. New South Wales
    c. South Australia
    d. Queensland
11. **Who prints *Amateur Radio* magazine?**
    a. Newsletters Unlimited
    b. Bill Harper
    c. Bill Roper
    d. Streamline Press
12. **Which month is the Novice Contest held?**
    a. August
    b. June
    c. May
    d. March
13. **Which long-standing AR advertiser regularly advertises Weather Fax computer software?**
    a. M Delahunty
    b. Dick Smith Electronics
    c. RJ and US Imports
    d. Radio and Communications Magazine
14. **Which country is <u>not</u> in IARU Region Three?**
    a. New Zealand
    b. Japan
    c. Korea
    d. South Africa
15. **Which part of the WIA decides on the recipient for the annual Ron Higginbotham Award?**
    a. Federal Council
    b. Federal Executive
    c. Amateur Radio Publications Committee
    d. Federal Awards Co-ordinator
16. **Federal Office staff members are:**
    a. June Fox and Rita Trebilco
    b. Barry Wilton and Ann McCurdy
    c. Pixie Chappell and Donna Reilly
    d. Bill Roper and June Fox
17. **In relation to the Federal Council, which of the following statements is correct?**
    a. Federal Executive sets policy, Federal Council implements policy
    b. Voting weight per Division is proportional to the number of members in each Division as a proportion of national membership

c. Each Division has one vote on Federal Council, irrespective of its size

d. Federal Councillors are directed by Federal Executive to run Divisions

18. Which WIA positions are paid?

a. Federal President

b. Members of Federal Executive (Directors)

c. Federal Councillors

d. None of the above

19. When you join the WIA, you become a member of:

a. A national body known as 'The Wireless Institute of Australia'

b. A state or territory Division of the WIA

c. A local radio club

d. The Radio Amateur Old Timers Club

20. The WIA is a member of:

a. The International Amateur Radio Union

b. The American Radio Relay League

c. The Australian Communications Authority

d. The inter-governmental consultative council on telecommunications and broadcasting

21. How many years ago do you need to have been first licensed to become a member of the Radio Amateur Old Timers Club?

a. 15

b. 20

c. 25

d. 30

22. Which of the following are not recognised as calling frequencies in Australian band plans?

a. 29.600, 50.110, 144.100, 439.000 MHz

b. 1.825, 14.195, 28.500, 438.525 MHz

c. 52.525, 146.500, 432.100, 1294.0 MHz

d. 53.500, 144.200, 432.200, 439.0 MHz

23. The WIA offers the following services:

a. Videotapes for affilated clubs

b. A register of stolen equipment

c. Federal news available via e-mail

d. All of the above

24. What is the exact title of the 2000 edition of the publication usually known as the 'WIA Callbook'?

a. WIA Yearbook 2000

b. The Australian Radio Amateurs Callbook 2000

c. 2000 WIA Callbook

d. The WIA Radio Amateurs Australian Callbook

25. WIA members who are not licensed amateurs are given listener numbers when they join. Which of the following would be an example of a WIA-allocated listener number?

a. BRS 14514

b. SWL 00787

c. L60004

d. Australian Receiving Station 508

26. How many members does the Federal body of the WIA have?

a. 7

b. 4300

c. 8000

d. 15000

27. WIA representation has achieved the following for Australian amateurs in the last 20 years:

a. Primary status for 420 – 450 MHz, 1000 watt power limit and access to an HF band at 5 MHz

b. Increased amateur access to 50 – 50.3 MHz, continuation of ATV repeaters on UHF Channel 35, novice privileges on two metres and a DX window near 3.8 MHz

c. A 160 – 190 kHz LF band, CEPT licensing and expansion of the 14 MHz band

d. Unattended remote crossband operation of amateur voice stations, permission to post equipment disposals messages on packet radio and Limited licence access to 28 MHz SSB.

28. Which of the following best summarises the Amateurs' Code?

a. Brave, Loyal, Tolerant, Friendly, Prudent, Hard-working

b. Persistent, Considerate, Resourceful, Impartial, Compassionate

c. Decisive, Ingenious, Balanced, Ethical, Fair, Knowledgeable

d. Considerate, Loyal, Progressive, Friendly, Balanced, Patriotic

29. Who has been the longest-serving editor of Amateur Radio magazine?

a. Ron Higginbotham VK3RN

b. Tom Hogan VK3HX

c. Bruce Bathols VK3UV

d. Bill Rice VK3ABP

30. On the internet, where would you find the WIA's Federal website?

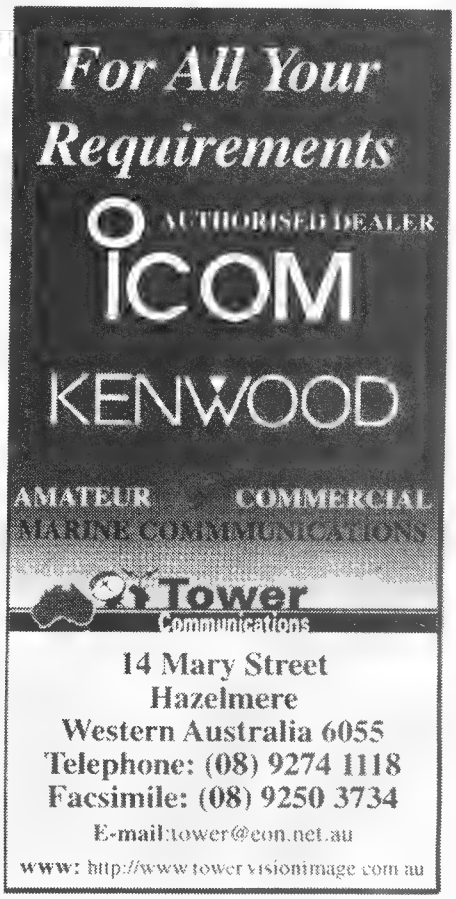
a. http://www.wia.org.au

b. http://wia.org

c. http://www.amateuradioaustralia.org.au

d. http://www.wia.net.au

Answers on page 55



Itinerant, flooded out and now happily in jail the very successful Geelong Radio and Electronic Society (GRES) and its museum has had a chequered and sometimes damp history

The Rise and Fall and Rise of the GRES

A 400 square metre multi-roomed clubhouse for $10 per year? The Geelong Radio and Electronic Society thought they were at the crest of the wave.

As it turned out the 2 metre wave was a literal, not figurative one.

By Rod Green VK3AYQ

After years in shared premises the offer of a dedicated clubrooms seemed like heaven for the Geelong radio and electronics society.

The new premises, on the banks of the Barwon River, were in fact a rather old and dilapidated former migrant hostel. Unfortunately, the buildings had been flooded during the early 1950s. The local council wanted to find a use for these buildings and they were offered to interested groups for meeting rooms. There were two 26 room "huts" available, each approximately 50 by 8 metres. One hut was rented from the council for $10 per year.

Sow's ear to silk purse through much effort

Extensive modifications were necessary to make the building 'home'. The whole building needed rewiring, and walls had to be removed. Fortunately two members were electricians, and one was a carpenter who could oversee the renovations.

When Bill Erwin VK3WE was elected as president in 1967 he accepted the position as project leader on one condition: that the members finished all renovations as soon as possible so that the clubrooms could be officially opened.

Bill was a primary school headmaster, a person who liked to get the job done. The number of working bees was increased. Members and their families were involved.

A ladies' auxiliary selected the colour scheme for the interior and performed many other essential tasks.

Early Navy Direction Finding Equipment

Outside; just a coat of paint; inside, big changes.

The hut was divided into 15 rooms, some the same size as the original rooms and some much larger. There was now a main meeting room, class rooms, workshop, office, kitchen, Morse code room, HF and VHF radio shacks, component store, library and audio room. Carpet for the main meeting room and the audio room was obtained for nothing when the Geelong Bowling Lanes replaced their old carpet.

The audio room was a feature, being as near to an anechoic chamber as finances allowed. The walls and ceiling were lined with egg cartons and cardboard packaging material. Heavy curtains were placed over the windows, and remaining areas were painted with satin finish paint. The result was a room with virtually no echo in it. Just right for testing audio amplifiers.

Finally in 1969 the rooms were ready for the official opening. The South Barwon Shire president, Cr R J Reynolds, opened the rooms in 1969 at an 'open weekend'. Members of the society were present to show visitors around and to answer any questions. It was estimated that the equipment was worth several hundred dollars.

Members had also been busy constructing a complete HF amateur radio station. The Society had been allocated the call sign of VK3ANR. It was essential that a working station go on air promptly. The station consisted of a superheterodyne receiver and a CW and AM transmitter for 80 metres, grid modulated due to a lack of funds. A suitable modulation transformer was too expensive, so a less costly method of modulation was used.

This station went on air either on the

regular Thursday meeting night or a regular Sunday morning net on 80 metres, and was open to all amateurs in the Geelong area. The net had a large audience of short wave listeners, who used either army disposal receivers, or converters in front of broadcast band receivers.

The first committees recognised the need to teach the basics of radio and electrical theory, so members could obtain an Amateur Radio station licence. As there was a shortage of licensed amateurs within the club the pupils were also the instructors. When I said yes to an invitation to join a class I was then told that I had to give a one-hour lecture on the neutralisation of high power RF amplifiers. A daunting task for a neophyte who couldn't tell a mixer from an oscillator. Why would you need to neutralise an amplifier anyway?

Every class member had to give one lecture on a designated topic, which made you learn that subject thoroughly. It helped the rest to learn, or maybe it was the blind leading the blind. Many amateur licences were obtained as a result of those classes. There were also classes held for the junior members. No examinations, the juniors attended just because they wanted to learn.

The syllabus has changed little over the years. Visits to industry, guest speakers, members giving talks on their own projects etc.

For example in 1976 an officer from Telecom gave a talk on Telecom in the future. In 1999 an officer from Telstra gave a talk on fibre optic communication. Also in 1976 a member gave a talk on radio-controlled models.demonstrating his single channel all valve equipment. In 1999 a member of the Geelong Model Aeroplane Club gave a talk on modelling. The topics remain the same but new techniques freshen the interest.

"Vintage" Radio

Due largely to the efforts of Mr Bill Bond VK3BWS, a telephone technician with the then PMG, a museum was started in the rooms.

Bill had 2 main hobbies: photography and audio. About 1973 someone donated an old Dutch radio receiver to the Society. This caught Bill's eye and a museum was born. He collected more items which he restored and put on display. In addition to radio there were early broadcast devices, teletypes, test equipment, old telephones, books, valves. The oldest item was an 1866 magic lantern complete with hand painted colour slides.

As the number of exhibits grew so did the area of the museum. Bill was the justifiably proud curator. Being in the clubrooms, the museum could not be open to the general public on an extended basis, but opened every Thursday, and later every Wednesday afternoon. During these openings retired members would meet for a talk, a coffee, and to work either on the clubrooms or on the museum. The museum was open to all by appointment with Bill. As news of the wonderful exhibits spread so the distance that visitors travelled increased. By 1995 a conservative estimate of the museum's value was $50,000.

A whole new meaning to 2 metre band

In November 1995 disaster struck.

The Barwon River flooded. The levee bank around the clubrooms, which previously kept the flood waters out, was overwhelmed and a lake formed behind it. The club house and museum sat in this 2 metre deep pond for two days after the flood until the levee could be breached to allow it to drain.

This gave rise to whole new meaning to '2 metre band', which became the high tide mark on the walls of the clubrooms. In the face of the rising water some members had rowed into the rooms and salvaged some items. However, not one thing fully escaped the water and silt. Absolute devastation. The rooms were so badly damaged that the council ordered they be vacated and were ultimately demolished.

A decision had to be made. Do we disband the club, or do we continue? These were the questions the members had to face up to. Urgent meetings were held in the rooms of the Geelong Amateur Radio Club and later the Guild Hall, the original meeting place. After much discussion the members agreed that the Society should continue.

Temporary accommodation was found at the Uniting Church hall in Hearne Hill, a suburb of Geelong. Meetings were again held on a Thursday evening with classes in radio theory being held before the main meeting. There was a lot to do now, with all of the flood-damaged material stored in various sheds around Geelong and in members' homes.

The old Geelong Jail had been leased by the Rotary Club of Geelong which was leasing out rooms to interested organizations. It was decided that the museum could be set up in rooms at the jail, with unused cells used to store surplus items. All at no cost to the Society, a very generous offer indeed. The museum was open regularly to the public as the jail opened each weekend and also on public holidays.

New premises were also found. The Society leased a disused tin shed behind the youth club in Belmont, a southern suburb of Geelong, and started to convert it into permanent meeting rooms. The renovation took about 12 months to a achieve functionality and is still ongoing. A large area of the shed housed vintage radio and telephone equipment. Other items were still stored at the jail. All submerged items had to be cleaned and catalogued. At the end of this process an auction of unwanted equipment sold over 600 lots to interested buyers. This freed up space, got rid of surplus equipment and generated much needed revenue.

There is no end to this story. More renovations to the clubrooms are planned,as is a workshop for members' use.and new radio shacks.

The important thing is that the Geelong Radio and Electronics Society is continuing — to build, to teach, and to embrace the exciting changes that are occurring in the field of radio, electronics and communications.

The Geelong Radio and Electronics Society was born on Thursday 22nd of August 1963.

At the first general meeting were 19 people who shared more than just an interest in radio. It also accommodated those interested in audio, radio control, or anything else that used resistors, capacitors and valves.

Mr Harry Michael VK3ASI was the first president. Meetings were held each Thursday evening in the Guild Hall. As scout groups shared hall, a search was made for more suitable rooms and two and a half years later the members moved to new premises. the rise and fall of these premises and the rise and rise of the club are the subject of the main story.

Technical Abstracts

Gil Sones VK3AUI
30 Moore Street, Box Hill South, Vic 3128

Low Impedance Parallel Square Conductor Transmission Line

Low impedance twin conductor transmission line is hard to find. It suffers from the need for close spacing and it is not readily available as a manufactured item. Construction of lines of between 70 ohms and 120 ohms impedance using square tubing as the parallel conductors was discussed in CQ November 2000 by George Murphy VE3ERP.

A formula which was used is :-

$$Z = 120 \log_n (A + \sqrt{(A^2 - 1)})$$

where

Z = Characteristic Impedance in ohms

W = Width of face of square conductor

D = 1.8*W

S = Centre to centre distance between conductors.

A = D/S

A basic program is available from George by emailing a request for SQLINE.BAS to ve3erp@encode.com.

The lines were constructed from square aluminium tube of between 0.25 inches square and 1 inch square. Spacers were cut from plastic waterpipe and the lines were held together by plastic bolts and nuts. For lines longer than the lengths of available tube George recommended cutting joining pieces out of scraps of the tube used for the lines. By doing this the chance of electrochemical reactions or corrosion is reduced as the line and the joiner are both made of the same material. It is relatively easy to cut short angle joiners out of a piece of square tube.

The dimensions of lines between 70 and 120 ohms for a range of tubing sizes are given in Table 1. Such a transmission line would make a boom for an all fed element array such as a log-periodic.

Table 1.

	Spacing between tubes. Inches.					
Tube Face Inches	70 ohms	80 ohms	90 ohms	100 ohms	110 ohms	120 ohms
0.25	0.097	0.113	0.132	0.154	0.178	0.205
0.5	0.193	0.226	0.264	0.307	0.356	0.410
0.75	0.290	0.339	0.396	0.461	0.534	0.616
1.00	0.387	0.452	0.528	0.614	0.711	0.821

Oscilloscope Calibrator

To calibrate an oscilloscope a known wave form with a known amplitude is needed. A 1 volt peak to peak square wave is convenient and easy to provide. A calibrator circuit which provides a 1 volt peak to peak square wave at a frequency of close to 1 kHz was described in CQ TV November 2000 by John Lawrence GW3JGA. The circuit uses common components and is easy to set to the required 1 V Peak to Peak output.

The circuit is shown in Fig 1. A common 9V battery is used for power. The locally available 216 type should be suitable. The other components are not particularly critical. For setting up disconnect D1 and adjust the DC output voltage across R4 to 1.0 volts. Then connect D1 and the output will be a 1 volt Peak to Peak square wave at around 1 kHz.

Many CROs use a probe with an adjustment. This adjustment can be set for a square wave and the sensitivity and calibration checked with this circuit.

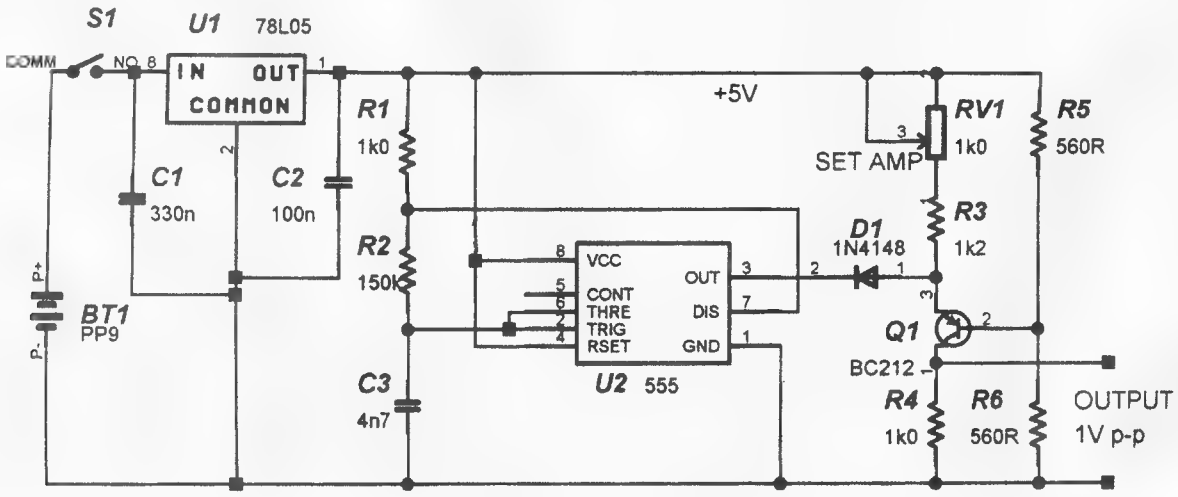


Fig 1. Oscilloscope Calibrator

Flying Solo Cable Tester

There are occasions when it is necessary to identify cable cores and this needs to be done by one person. Rotator cable cores where a colour code is not evident or identifying which coax is which in a bundle between shack and tower top are two applications where a cable tester is useful. A suitable simple design appeared in CQ November 2000 from Gary Palamara KB2YTN.

The tester uses a string of resistors in a voltage divider across the output of a single chip IC Regulator. The resistor string is arranged so that each resistor has one Volt across it. This makes it easy to relate the tester output pin and wire number to the wire and voltage at the remote end. The regulator used was a 12 Volt one which with 12 equal value resistors results in one Volt per output. The regulator type is not critical as the load is small.

The tester is shown in Fig 2.. The power source could be two 9 volt batteries in series. The LED provides an indication of voltage output from the regulator. No light from the LED could be a dodgy battery ora short across the output pins 0 and 12. The regulator would be current limiting in this case. The resistor values are not critical but all should be of the same value to maintain the 1 Volt steps. For larger cables a 24 or 15 Volt version could be built using other common regulators. These would accommodate 25 or 16 wires respectively. The number of batteries in series as a power source would need to be increased.

ar

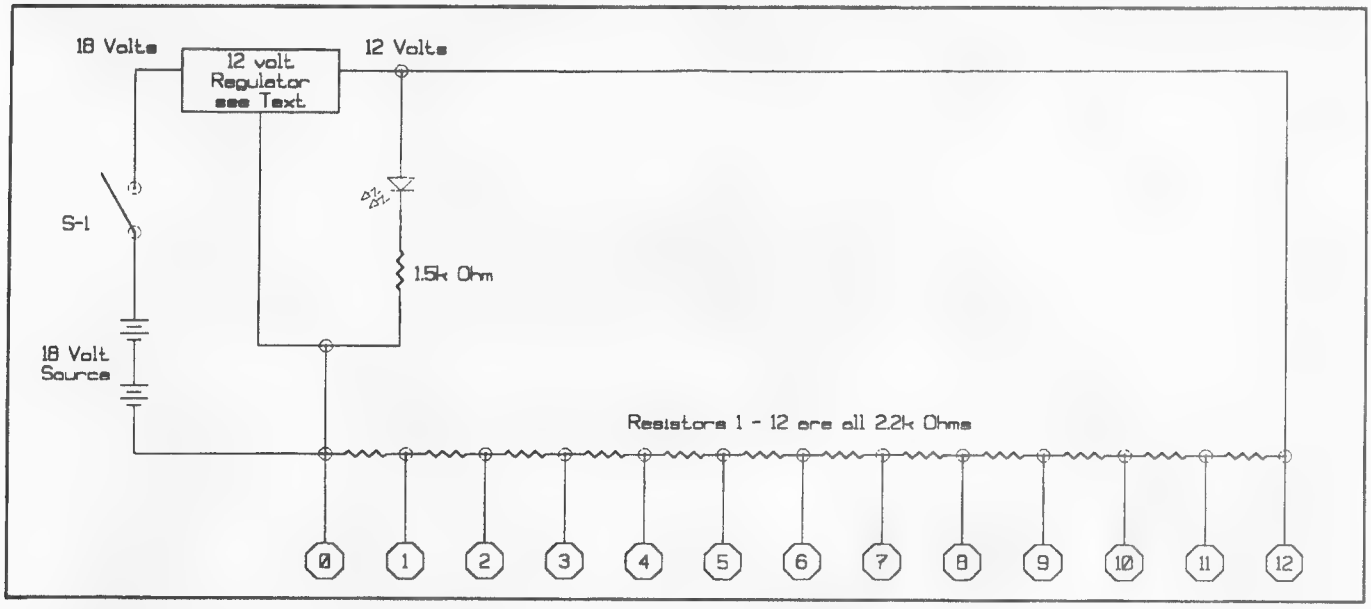


Fig 2. Flying Solo Tester.

VIRAS: Special Event Station

An event which attracted little publicity but which was important to those amateur operators who have served in the Royal Australian Corps of Signals, took place during November last. The special callsign V15RAS was allocated for the whole month of November in connection with the 75th Anniversary of the Corps.

The event was ably managed by VK5 operators who were on air from current Army Signal Squadrons in South Australia and New South Wales. It is to be hoped that some amateurs found previous Signals Comrades through the special event station.

To those who managed to contact the station, an attractive card was issued, printed in the traditional colours of Signals regiments with a short Corps history on the reverse. A copy is enclosed for reproduction.

On behalf of all "ex-Sigs" I thank VK5ABO, VK5FV, VK5GZ and supporting troops who made the whole operation work so well.

Amateur Radio Magazine Awards

The Publications Committee has decided to make the following awards for 2000.

The Technical Award for the best Technical Article published in AR in 2000 to **Godfrey Williams VK5BGW** for his article "An USB RX for the 20m band" published in April 2000.

The Higginbotham Award for service to the Amateur Radio Magazine to **Bill Rice VK3ABP**. Bill was the longest serving Editor of AR and continues to participate in the production of the magazine.

This year the Awards will take the form of a framed Certificate and a cheque.

C H Low VK5UE Editor

ALARA

Christine Taylor VK5CTY
VK5CTY@VK5TTY or geencee@picknowl.com.au

Luncheons

The summer months are a popular time for luncheon meetings. In VK3 and VK5 these are regular events but in Townsville, a ladies luncheon is not so common. At the luncheon (at the "Bulls' Britches Bistro") there were 11 ladies present. It is great to see so many faces and to have the chance to share a happy time together. I am sure this will not be the last such luncheon, it is one of the reasons ALARA was founded, for the YLs, both licensed and unlicensed to get-together.

At the January meeting in Adelaide the regular lunchers had the opportunity to meet some of the family of Christine VK5CTY (she was partly in the photo but was cut out before inclusion in this column). Once or twice a year we meet some of the younger families and enjoy it very much.

Some Information For All Amateurs

Here in Australia and in most parts of the world amateurs regularly exchange the greetings "73" and "88" but this is not as welcome in some parts for local reasons.

If you are talking, by voice or CW to an amateur in Germany it is best not to use the "88" greeting. Unfortunately this form of greeting has been adopted by some of the more radical political groups in that country. If you think of the eighth letter of the alphabet you will realise that "88" could stand for a greeting that was common in the 1930's and 40's.

At the ALARA meeting in Hamilton the ladies present were warned by the OM of one of the YLs there of the undesirable connotations that "88" can mean in Germany.

On a more cheerful note, for anyone travelling through Central Victoria, the Ben Nevis repeater may be incorrectly listed in the 2001 callbook. It can be heard on a frequency of 147.100 MHz. For local contacts in the Ballarat area it is recommended that you use 146.750 MHz, as usual. This information came from Mary VK3FMC who would love to hear from anyone passing through Ballarat. If you have time I know she would also like to offer you a cup of tea.

On that point, don't forget, whenever you are visiting a new city or town it pays to put out a call on 2-metres. There is usually someone listening who will be happy to talk to you. To those who listen but only talk to their friends, remember how pleased you might be one day to have a contact in a strange town.

As far as ALARA is concerned, in Adelaide at least, the ALARA members are so well known to the amateur community that we are almost always given a call on the phone if a YL voice from another state is heard. We would love to have a chat and to meet if that is possible.

If the ALARA ladies in the other states are not quite as well known the word usually finds its way to the right ones. Please give us a chance to say "Hello".

The Townsville Amateur Radio Club ladies' luncheon
L—R: Lynda Male, Lynette Mann, Sri, Nutiti Ostrenski, Pat Edmonds VK4MUY, Annette Franz, Sally Grattidge VK3SHE, Ann Renton VK4MUM, Lyndal Reibelt VK4MOP, Daven Tulloch and Margaret Neilsen VK4JMN

Food For Thought

A message from across the world came this way recently. It told of a group of Girl Guides in the US who are all the daughters of women in prison. These girls form a normal GG group but with an extra dimension. At times they go to visit their mothers in prison.

When they visit they must pass though the security system, negotiate a metal detector and an X-ray machine and leave all their crayons and pens at the door just like any other prison visitor. Inside they behave like any other child with the mother they only see occasionally, they show off their report cards and photos and they bring greetings from brothers and grandparents etc. They draw pictures with and for their mums and they stand hand-in-hand in a circle to recite the Girl Guide mottos pledging honesty and responsibility, and to sing songs together.

Then it is time to leave which can be difficult for them all. "Till the next time" they wave at each other through the bars.

This particular troop is number 1617 of Doylestown in Pennsylvania, part of "Girl Scouts Beyond Bars" and is one of 20 such groups in America. They have been formed in the hope of "breaking the chain". Too often the children of prison inmates later go on to commit crimes that see them also become prison inmates. If this chain can be broken all of society will benefit. In Doylestown the scheme has been running for six years in which time none of the girls have been arrested.

Perhaps the saddest story is that of one girl who visited her mother for several months through this program till her mother was released. Unfortunately her mother offended again and was returned to prison. Now her daughter will not visit her. She has expressed the wish that her mother "stay in prison forever so she can keep her life straight".

Monday Nets

The number of YLs on the Monday Nets is very pleasing. Even though the summer this year the VK4 girls have been able to hear those down South

better than usual. This may due to the high sunspot number but perhaps also due to the work of the Intruder Watch group as they have suffered for some years from commercial stations originating to the North of Australia but being transmitted in the amateur bands. Thanks IW people. You do a great job with few thanks.

Please join us on a Monday evening. We use 3.580MHz or thereabout and start at 1000 ZULU in summer, 1030Zulu in winter. We have a different net controller each week and we operate from North to South of the country and East to West. The ALARA Net is a good place to find out what the weather has been like across this marvelous country. That is usually the first topic, but after that the discussion could be on any topic at all. Between us we have a wide range of interests.

OMs please call in and allow the YL to participate. Newcomers are always welcomed. Remember that we all had to pick up the microphone for the first time. We were just as mike-shy as anyone else the first time although we sound so confident, now.

An Adelaide luncheon
L-R Tina VK5TMC, Deanna Taylor, Trisha Taylor, Jason Taylor, Meg VK5YG and Maria VK5BMT.

Education Notes

Brenda M Edmonds, VK3KT.*

Challenge to amateurs: recruit women

I have been discussing the future of amateur radio with a number of amateurs of late.

There seems to be a general agreement that we are not recruiting the numbers that are needed if the hobby is to survive and prosper into this century. It is agreed that many of those who would once have been attracted to amateur radio are now so firmly attached to their computers that surgical removal seems the only option. Those who would have entered the hobby after experiencing the magic of worldwide communication are already communicating worldwide at the touch of a switch and without studying and passing examinations.

So what is there left for us to offer? We have to remember that we are, firstly and most importantly, communicators. A radio is the medium most familiar to us, but perhaps we can entice the new recruits by linking the computers to the radios, or by exploring the radio links provided by the mobile telephone systems. I am not technically competent to build on these ideas, but one thing I have learnt from a long time in amateur radio is that if an idea is advanced, there will be someone somewhere who can build on it and make it work. The ingenuity and resourcefulness of the amateur body is well documented. Perhaps now is the time for amateurs to reclaim their position at the forefront of development.

What about the other source of new recruits, - those who come to amateur radio as a hobby for their retirement? There are still a few retirees who are happy to have left the computer systems behind. We need to be ready to accept these and make the path into amateur radio easy for them - once they find out about us and decide they wish to become amateurs. I would be interested to know which clubs or groups are running novice or full-call classes this year, and how they are advertising the classes. If the public does not hear about amateur radio, how can they become involved? Some groups run field days or hamfests on a regular basis, but are these advertised in the local press or just by a flier in "Amateur Radio"?

Another reason for publicity is to attract that other large section of the population - women. There is no reason why the number of female amateurs should not equal that of males unless our predominantly male members have a biased outlook. I challenge all current amateurs to go out and recruit one new female licensee! I am working on my two granddaughters!

Correction:

Maths for Amateur Radio,* December 2000 issue of *Amateur Radio

A reader has found mistakes in the article "Maths for Amateur Radio" published in the December 2000 edition

The correct statements are:

(2) Bearing H =acos {(sinL2-sinL1cos(D/60))/sin(D/60)cosL1}

(5) H =57.3*acos((sin(b2)-sin(a2)*cos(a4))/(sin(a4)*cos(a2))

(5a) a4=a3/(60*57.3)

Lindsay Lawless VK3ANJ

DON'T MISS THE ACTION!

WIA Amateur Callbook 2001

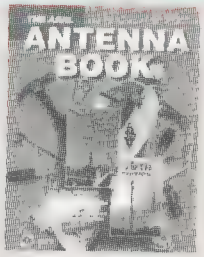
Features a wide range of information about amateur radio, and includes an updated listing of call signs, names, and postal addresses of all radio operators licensed by the Australian Communications Authority.

NEW

$24.80

ARRL Antenna Handbook

19th Edition



Learn how to design and build your own antenna. This book covers broadband antennas, gain and size comparisons for multi-element arrays, log periodic, quad, long-wire and travelling wave antennas. Includes a CD-ROM with two new Windows programs, detailed propagation forcasts, and more.

B 2234

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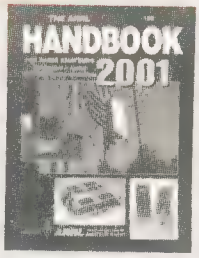
ARRL Ham Radio Handbook 2001



This is the 78th edition of the standard reference book for radio amateurs, electronics technicians and professional engineers. 1200 pages translate theory into practice through a large variety of hands-on-projects.

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SB-15 6m/2m/70cm Mobile Antenna

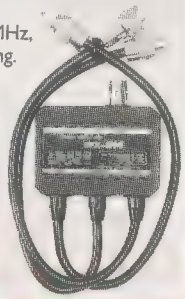
A compact tri-band mobile whip that covers the Australian 6m, 2m, and 70cm amateur bands. It has centre frequencies of 52.5MHz, 146.5MHz, and 435MHz, with good bandwidth on each band. The antenna is approximately 1.5m long, weighs just 420g and includes a fold-over adaptor built into the base section.

$149

CFX-514N Antenna Triplexer

Allows connection of a multi-band transceiver such as the FT-847 to a common coax cable. Inputs cover 1.3 to 90MHz, 130-200MHz, and 300-500MHz, with 500W PEP power rating. Insertion loss is <0.3dB, and isolation between ports is more than 55dB. Uses an N-connector on UHF input, and PL-259 connectors on other inputs.

D 3325



$168

AS-510 6m/2m/70cm Handheld Antenna

A high-efficiency flexible antenna with fitted male SMA connector that suits 6m/2m/70cm Amateur band transceivers such as the Yaesu VX-5R. Provides improved performance compared to the antenna normally supplied with the VX-5R, particularly on the 6m band.

D 4339

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2373 DPSspot col.

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6m 1/2 Wave Base Antenna

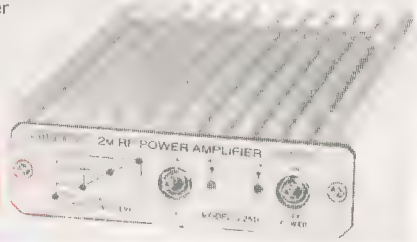
A rugged Australian-made vertical antenna designed to cover the 51 to 54MHz range, with minimum SWR around 53MHz. Built using high tensile T81 grade aluminium, it's just 2.9m long with a sealed base section and 100W minimum power rating. Complete with mounting hardware.

D 4825 **$69.94**

Digitor 2m 30W RF Power Amplifier

If you use your 2m band FM handheld at home or in the car, but find that 2-3W RF output isn't enough for reliable communications, then this compact 30W RF amplifier may be the answer. It works with inputs from 0.5 to 5W and produces up to 30W output with just 3W input. A switchable 12-15dB gain low-noise GaAs FET receiver pre-amplifier can be selected for improved receiver performance on less sensitive handhelds when being used in RF quiet areas. The amplifier offers a large heatsink for extended duty-cycle transmissions, fused DC power lead, and SO-239 input/output connectors.
Frequency range 144-148MHz, FM only.
Size: 100 x 36 x 175(WHD).

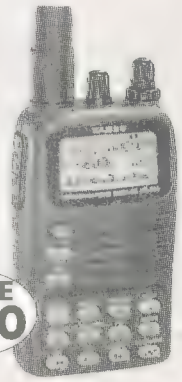
D 2510 **$99.90**



Yaesu VR-500 Multi-mode Scanner

The new VR-500 is more than just a scanning receiver, it's more like a miniature high performance monitoring station! Providing almost continuous coverage of the 100kHz to 1300MHz range, the VR-500 includes reception of narrowband FM, wideband FM (for FM and TV broadcast audio), SSB (for Amateur, CB, and HF reception), CW, and AM (for shortwave and broadcast station) signals. A large backlit LCD screen not only displays the receiver operating frequency, but also displays channel steps and reception mode. For monitoring band activity above and below your current listening frequency, the VR-500 even provides a 60 channel Bandscope to display local activity (within a range of 6MHz max when used with 100kHz steps). A total of 1091 memory channels are provided, with 1000 of these being "regular" memories with alpha-numeric tagging, and the balance being for special features (such as Search band memories, Preset channel memories, Dual Watch memories, and a Priority memory channel). A Smart Search™ function, which sweeps a band and finds in-use channels, allows you to allocate up to 41 memories that can automatically note these active frequencies. The VR-500 operates from just 2 x "AA" size alkaline batteries, and can be connected to an external 12V DC source (such as a vehicle cigarette lighter) using the optional E-DC-5 adaptor. For easier operation, the VR-500 can also be connected to your PC using the optional ADMS-3 interface/software package.

D 2799



YAESU **$599** SAVE $100

Yaesu FT-90R 2m/70cm micro mobile

Another engineering breakthrough from Yaesu – a tiny dual-band mobile rig with high power output, a remoteable front panel, and a rugged receiver front-end. The FT-90R provides 50W RF output on the 2m band as well as 35W output on the 70cm band, a solid die-cast casing with microprocessor controlled cooling fan for reliable operation, and a large back-lit LCD screen, all in a package measuring just 100mm x 30mm x 138mm.

Also includes:

- Wide dynamic range receiver for greatly reduced pager breakthrough.
- Huge receiver coverage – 100-230, 300-530, 810-999.975MHz (Cellular blocked).
- 180 memories and a variety of scanning functions.
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- Designed for 1200 and 9600 baud packet operation.
- Tiny remoteable front panel (requires optional YSK-90 separation kit)
- Includes MH-42 hand mic, DC power lead, and easy to follow instructions.

D 3312

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2 YEAR WARRANTY

YSK-90 Front Panel Separation Kit **$144**

D 3317

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2373 DPS spotcol.

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The Wireless Institute of Australia represents the interests of all radio amateurs throughout Australia. National representation is handled by the executive office under council direction. One councillor for each of the seven Divisions. This directory lists all the Divisional offices, broadcasts schedules and subscription rates. All enquiries should be directed to your local Division.

Broadcast schedules

All frequencies MHz. All times are local.

VK1 Division Australian Capital Territory,
GPO Box 600, Canberra ACT 2601

President	Gilbert Hughes	VK1GH
Secretary	Peter Kloppenburg	VK1CPK
Treasurer	Ernest Hosking	VK1LK

VK1WI: 3.590 LSB, 146.950 FM each Sunday evening from 8.30pm local time. The broadcast text is available on packet, on Internet *aus.radio.amateur.misc* news group, and on the VK1 Home Page http://www.vk1.wia.ampr.org

Annual Membership Fees. Full $77.00 Pensioner or student $63.00. Without *Amateur Radio* $49.00

VK2 Division News South Wales
109 Wigram St, Parramatta NSW
(PO Box 1066, Parramatta 2124)
(Office hours Mon-Fri 1100-1400)
Phone 02 9689 2417
Web: *http://www.ozemail.com.au/~vk2wi*
Freecall 1800 817 644
e-mail: *vk2wi@ozemail.com.au*
Fax 02 9633 1525

President	Terry Davies	VK2KDK
Secretary	Barry White	VK2AAB
Treasurer	Pat Leeper	VK2JPA

From VK2WI 1.845, 3.595, 7.146*, 10.125, 14.160, 24.950, 28.320, 29.120, 52.120, 52.525, 144.150, 147.000, 438.525, 1281.750 (* morning only) with relays to some of 18.120, 21.170, 584.750 ATV sound. Many country regions relay on 2 m or 70 cm repeaters. Sunday at 1000 and 1930. Highlights included in VK2AWX Newcastle news, Monday 1930 on 3.593 plus 10 m, 2 m, 70 cm, 23 cm. The broadcast text is available on the Internet newsgroup *aus.radio.amateur.misc*, and on packet radio.

Annual Membership Fees. Full $78.00 Pensioner or student $61.00. Without *Amateur Radio* $47.00

VK3 Division Victoria
40G Victory Boulevard Ashburton VIC 3147
(Office hours Tue 10.30 -2.30)
Phone 03 9885 9261
Web: *http://www.wiavic.org.au*
Fax 03 9885 9298
e-mail: *wiavic@wiavic.org.au*

President	Jim Linton	VK3PC
Secretary	John Brown	VK3JJB
Treasurer	Barry Wilton	VK3XV

VK3BWI broadcasts on the 1st Sunday of the month at 8.00pm. Primary frequencies, 3.615 DSB, 7.085 LSB, and FM(R)s VK3RML 146.700, VK3RMM 147.250, VK3RWG 147.225, and 70 cm FM(R)s VK3ROU 438.225, and VK3RMU 438.075. Major news under call VK3ZWI on Victorian packet BBS and WIA VIC Web Site.

Annual Membership Fees. Full $78.00 Pensioner or student $61.00. Without *Amateur Radio* $47.00

VK4 Division Queensland
PO Box 199, Wavell Heights, Qld. 4012
Phone 07 3221 9377
e-mail: *office@wiaq.powerup.com.au*
Fax 07 3266 4929
Web: *http://www.wia.org.au/vk4*

President	Colin Gladstone	VK4ACG
Secretary	David Jones	VK4OF
Treasurer	Bill McDermott	VK4AZM
Office Mgr	John Stevens	VK4AFS

VK4WIA broadcasts on 1.825 MHz SSB, 3.605 MHz SSB, 7.118 MHz SSB, 10.135 MHz SSB, 14.342 MHz SSB, 21.175 MHz SSB, 28.400 MHz SSB, 29.660 MHz FM (rptr), 147.000 MHz, and 438.525 MHz (in the Brisbane region, and on regional VHF/UHF repeaters) at 0900 hrs K every Sunday morning. QNEWS is repeated Monday evenings, at 19.30 hrs K, on 3.605 MHz SSB and 147.000 MHz FM. On Sunday evenings, at 18.45 hrs K on 3.605SSB and 147.000 FM, a repeat of the previous week's edition of QNEWS is broadcast. Broadcast news in text form on packet is available under WIAQ@VKNET. QNEWS Text and real audio files available from the web site

Annual Membership Fees. Full $85.00 Pensioner or student $72.00. Without *Amateur Radio* $56.00

VK5 Division South Australia and Northern Territory
(GPO Box 1234 Adelaide SA 5001)
Phone 08 8294 2992
web:*http://www.sant.wia.org.au*

President	Jim McLachlan	VK5NB
Secretary	David Minchin	VK5KK
Treasurer	John Butler	VK5NX

VK5WI: 1827 kHz AM, 3.550 MHz LSB, 7.095 AM, 14.175 USB, 28.470 USB, 53.100 FM, 147.000 FM Adelaide, 146.700 FM Mid North, 146.800 FM Mildura, 146.825 FM Barossa Valley, 146.900 FM South East, 146.925 FM Central North, 147.825 FM Gawler, 438.425 FM Barossa Valley, 438.475 FM Adelaide North, ATV Ch 35 579.250 Adelaide. (NT) 3.555 USB, 7.065 USB, 10.125 USB, 146.700 FM, 0900 hrs Sunday. 3.585 MHz and 146.675 MHz FM Adelaide, 1930 hrs Monday.

Annual Membership Fees. Full $82.00 Pensioner or student $68.00. Without *Amateur Radio* $54.00

VK6 Division Western Australia
PO Box 10 West Perth WA 6872
Phone 08 9351 8873
Web: *http://www.iinet.net.au/~vk6wia/*
e-mail: *vk6wia@iinet.net.au*

President	Neil Penfold	VK6NE
Secretary	Christine Bastin	VK6ZLZ
Treasurer	Bruce Hedland-Thomas	VK6OO

VK6WIA: 146.700 FM(R) Perth at 0930hrs Sunday relayed on 1.865, 3.564, 7.075, 10.125, 14.116, 14.175, 21.185, 29.120 FM, 50.150 and 438.525 MHz, Country relays 3.582, 147.200 (R) Cataby, 147.350 (R) Busselton, 146.900 (R) Mt William (Bunbury).147.000 (R) Katanning and 147.250 (R) Mt Saddleback. Broadcast repeated on 146.700 at 1900 hrs Sunday relayed on 1.865, 3.564 and 438.525 MHz : country relays on 146.900,147.000, 147.200, 147.250 and 147.350 MHz..Also in "Real Audio" format from the VK6 WIA website

Annual Membership Fees. Full $69.00 Pensioner or student $59.00. Without *Amateur Radio* $38.00

VK7 Division Tasmania
PO Box 371 Hobart TAS 7001
Phone 03 6234 3553 (BH)
Web: *http://www.tased.edu.au/tasonline/vk7wia*
also through *http:/www.wis.org.au/vk7*
email: *batesjw@netspace.net.au*

President	Phil Corby	VK7ZAX
Secretary	John Bates	VK7RT
Treasurer	John Bates	VK7RT

VK7WI: 146.700 MHz FM (VK7RHT) at 0930 hrs Sunday relayed on 147.000 (VK7RAA), 146.725 (VK7RNE), 146.625 (VK7RMD), 3.570, 7.090, 14.130, 52.100, 144.150 (Hobart), repeated Tues 3.590 at 1930 hrs.

Annual Membership Fees. Full $88.00 Pensioner or student $75.00. Without *Amateur Radio* $55.00

VK8 Northern Territory (part of the VK5 Division and relays broadcasts from VK5 as shown, received on 14 or 28 MHz).

Division Notes

VK1 Notes

Forward Bias

Peter Kloppenburg VK1CPK

Our Annual General Meeting was a successful event on February 26, 2001. A total of 38 members were present to say goodbye to the old committee members and welcome the new ones. Two new members joined the committee. They are Alan Hawes (VK1WX) and Colin Holmes-Clarke (VK1HCC). Alan is an old hand with committee work; he used to be the divisional president some years ago. Colin has not been on the committee before, but his presence there is important because as Broadcast Officer he can keep himself fully informed about current issues facing the Division and make his broadcasts more newsworthy. The full lineup of the new committee is as follows: Gilbert Hughes-President, Phil Longworth-Vice-President, Mike Dower-Vice-President, Ernest Hocking-Treasurer, and Peter Kloppenburg-Secretary. Richard Elliott, Colin Holmes-Clarke, and Alan Hawes, are committee members. All of us are looking forward to an equally successful term of office as last year.

The Division's status as a business was confirmed recently when the Australian Taxation Office (ATO) issued an Australian Business Number (ABN) to us. The number is as follows: ABN 49 165 386 789. The main benefit is that we can receive grants from other registered entities without having 48% withheld for taxation purposes.

At the time of writing , the Division is getting close to finalising the terms of condition for the establishment of a VK1 amateur radio club station in Farrer. Conditions of our use of the site have been proposed between the Scout Group and the Division, and we will need approval from Urban Services to erect a tower on the grounds.

The next General Meeting will take place on April 23, 2001 in Room 1, Griffin Centre, Civic, Canberra City. See you there! Peter K.

VK3 Notes

Website: www.wiavic.org.au Email: wiavic@wiavic.org.au

By Jim Linton VK3PC

WIA Victoria AGM

The Council has set the AGM date at Wednesday, 23 May, 2001. An official notification and annual reports will be sent to members.

The Science Show

The viability of WIA Victoria hosting a stand and other activities at the very popular annual Science Show is being investigated.

The show held at the Convention Centre (Jeff's Shed) runs for several days and is visited by thousands of school students and teachers.

It is an excellent opportunity to expose our hobby. If sufficient sponsorship and voluntary labour support can be found, this major public relations project will go ahead.

If you can assist, please contact Brenda Edmunds VK3KT QTHR, or email wiavic@wiavic.org.au

WIA Victoria Awards

Reminders about both the WIA Victoria George Bass Diploma and the WIA 90 Award.

The diploma is for trans-Bass Strait contact on VHF and UHF. This is now in its second semester which ends on 30 April. With reports of summer propagation between Tasmania and the mainland some more operators are certain to have qualified.

The WIA 90 Award celebrates the 90th birthday of WIA Victoria. Members are encouraged to join in the celebration and qualify for a special award through personal achievements.

The mandatory requirements include submitting an entry in the RD Contest 2000, and making contact with nine other WIA Victoria members (not during a contest).

There is also a list of extra optional achievements for qualification. Entries for the WIA Victoria 90 Award close on 30 June, 2001. It is available at no charge.

Full qualification criteria for both awards are on the WIA Victoria website and available on requests to the WIA Victoria office.

Tower woes

A recent inquiry by a member has prompted a general warning to radio amateurs who are considering buying a second hand tower.

A problem does exist with copies of the popular Nally tower, including home-brew clones, which do not meet specifications.

When making an application to a local government council for installation of a radio mast (preferred term to tower), the applicant needs an engineering plan and specification. Without this documentation the council won't accept an application.

Some radio amateurs in the past with Nally look-a-like towers have tried to fool their council by supplying Nally engineering and specification documents.

Apart from this being fraud, and the consequences of it failing structurally, a council on final inspection is likely to order it be pulled down. A cheap second hand tower may not be the bargain it first seems. Buyers should ask the following questions: Does it have an engineering plan and specification? What is the age of the tower? This is a factor because the steel specifications changed many years ago.

WIA Exam Service

WIA Victoria supports a re-shaping of the WIA Exam Service to addressing its known shortcomings.

The council at its meeting on 27 February addressed the issues of examination centre and invigilator registration, the terms of appointment, exam procedures and recovery of administrative costs.

The review of the WIA Exam Service is expected to be completed by the Federal Council at the WIA Federal Convention this month, and policy determined to implement the agreed changes.

VK4 Notes

QNews

By Alistair Elrick VK4MV

An Opening

Last Saturday saw a spectacular sporadic E opening on our bands. Many in the Brisbane area who run "police scanners" were alerted to the conditions as they suddenly were copying VKR Rockhampton on 468MHz.

The action starting around 0300z, saw VK4's working VK5 on 52.525 MHz. VK4s were also working into VK3 and VK5 on 144 MHz SSB. 6 hours later VK5 into VK3 on 10 and 6 meter repeaters then the whole E ended abruptly at 13:15. The opening was enjoyed by all present and the bands were buzzing all night with activity.

It Is On Again

After some confusion with the venue and bookings, it can be confirmed that BARCFEST will be held after all at Kelvin Grove High School. However the date is now MAY 26 a little later in the year than usual.

QNews Bits

For the week of February 18th, QNEWS recorded three hundred (300) audio checkins on RF! This without any P29/VK6 figures and with no VK2 broadcast that Sunday. Our previous 'high' was 276 audio checkins April 30 2001

One of our more easily made contacts with the WIAQ is by HF radio Monday nights. Normally with at least 1 Councillor ready to answer any of your questions. This is on 80 meters, 3.605 following the 7:30pm rebroadcast of QNEWS.

Messages sent via the QNEWS @ VK4WIE Server are automatically copied across to Ham Club News Editors and Office Bearers, Special Interest Groups and WIAQ Office Bearers along with AR and QTC Magazine Editors. Hopefully it is the SAFEST and QUICKEST way to get your organisations activity broadcast during QNEWS plus alert all Clubs WIAQ and AR Journal. NOTE THE ADDRESS QNEWS @ VK4WIE.#BNE.QLD.AUS.OC E-MAIL qnews@powerup.com.au

QNews 160 metre News Re-broadcasters

The 160 metre band has 3 rebroadcasters, VK4AIF Ivan, VK4AI Reg and VK4BOS, Cliff. They have callbacks supplied each week by VK4BCF Brian.

VK4AIF transmits from Beachmere with a Kenwood TS440S, 100 watts to an Open wire fed 250 foot dipole and has been serving the 'top end gang' for approximately 11 years and full time rotation for about 6 years.

VK4AI operates from Clontarf again with a TS440S into a full size 160 metre dipole for the same period.

VK4BOS is at Upper Caboolture, 400w from an IC2KL Linear and an Icom 756. Cliff's antenna is a quarter wave end-fed Marconi driven against the ground.

All stations take their audio feed from the Brisbane VHF Groups UHF repeater, and Reg VK4AI also can take the 2 metre uplink audio.

An Address To Note

There are still some articles of correspondence to the WIAQ requiring redirection from the old PO Box. It is worth adding to the publicity in this regard that the only WIAQ address for all incoming mail including both QSL Bureaus, QTC, Qnews and Council or Office is now PO Box 199, Wavell Heights, Qld 4012. All mail should always be sent to the official box not home addresses.

Link Complete

Bundaberg club has completed the link to Dalby from their Mt Goonaneman repeater site. Bundaberg's 70cm repeater and Dalby's 2m repeater are linked and many contacts have already been made, with good copy each way. The Sunday Morning news now can also be heard on their 70cm repeater via Dalby with several stations in the Wide Bay area checking in with Margaret VK4AOE in Dalby after QNEWS. Dalby repeater coordinator Mike VK4XT says these stations say were VK4's JM/BG/TVI/NW and JRO. Bundaberg's local Club net has been re established. The Committee is more than pleased with 12 stations calling in for a ragchew on a normally pretty quiet repeater. This net is open to all amateurs in the area and is run on "Town Repeater" 147.800 MHz Monday nights commencing at 1930 hrs.

Towering Inferno - NTS Array Goes Up In Smoke

An electrical fault in a television transmitting array lead to a spectacular fire and loss of 4 of the available 5 free to air television channels in the Townsville/Thuringowa region, along with SBS and ABC FM audio services.

Amateur Radio operator Don/VK4MC brought the event to the attention of other hams in the region. About the same time the population of the region were coping with fuzzy signal and distorted pictures minutes before radio and television services ceased transmitting and David/VK4KIX witnessed the flaming remains of the radome falling onto the ground.

The TARCinc VK4RAT Repeater Site, sited only metres from the NTS compound was undamaged, relaying situation reports during the incident without any degradation to service. The fire was hot enough to melt aluminium and brass. VK4ZZ collected a piece of melted antenna for a show and tell session at the next TARC Project Night and the next TARC Radio Theory Class. The top of the tower is a mess, resembling something out of a Godzilla movie. The UHF TV arrays are gone, but there are still pieces of fibreglass radome in place and there is a mess of burnt coaxial cable just lying on top of the tower.

The BoatAnchor Manual Archive is available to all that enjoy working on and restoring old valve type amateur radio equipment and short wave receivers. This is a totally free cooperative service to the BoatAnchor community. It is made possible by the generous folks who take the time and make the effort to scan and upload their manuals to the BAMA site. http://bama.sbc.edu

VK2 Notes

By Pat Leeper

Well, the Wyong Field Day has come and gone and seems to have been a great success. It was good to meet so many people, especially those from other states. Among the helpers on the WIA stand were Peter and Monica Naish of Federal, most of the NSW division directors and several other regular stalwarts.

We saw the WIA (NSW) Historian Jo Harris VK2KAA on her club stand, answering questions as usual.

The NSW Division Annual General Meeting is coming up on the 21st April, with nine nominations for council. As this is the required number of directors, there will obviously be no need for an election. Those standing are Terry Davies VK2KDK, Brian Kelly VK2WBK, Pat Leeper VK2JPA, Geoff McGrorey-Clark VK2EO, Chris Minahan VK2EJ, Andrew Scott VK2TWO, John Turner VK2WRT, Ken Westerman VK2AGW, Barry White VK2AAB. The only new name is Andrew Scott VK2TWO, as the remainder are present councillors standing for another term.

The meeting will be held at Amateur Radio House 109 Wigram Street Parramatta commencing at 11am.

The next regular council meeting will be held on 27th April, having been put back because of Easter and the Annual General Meeting.

As this may be my last report, I would like to thank the editor Colwyn, for coping with my sometimes late submissions and for all of you for reading same.

Cheers

Pat Leeper VK2JPA

VK7 Notes

Wireless Institute of Australia. Tasmanian Division Inc.
VK7 Division Executive 2001

President/Federal Councillor	Mr Phil Corby	VK7ZAX
Secretary / Treasurer	Mr John Bates	VK7RT

Divisional Councillors

Mr Ron Churcher VK7RN	Mr Allen Burke	VK7AN
Mr Mike Jenner VK7FB VK7MGW	Mr Bob McCulloch	
Mr Dale Barnes VK7DG	Mr Bob Cropper	VK7BY

Ex Officio Office Holders

Federal Councillor	*Phil Corby VK7ZAX
Alt Federal Councillor	*Ron Churcher VK7RN
Public Officer	*John Bates VK7RT
Membership Officer	*John Bates VK7RT
Membership Recruitment Officer	*Allen Burke VK7AN
Awards Manager	*John Bates VK7RT
QSL Manager	*John Bates VK7RT
FTAC	
Broadcast Officer	*Mike Jenner VK7FB
Assistant Broadcast Officer	John Rogers VK7JK
Historian	Richard Rogers VK7RO
Education Officer	Reg Emmett VK7KK
Hon. Solicitor	*Phil Corby VK7ZAX
Web Master	Robert McKenzie VK7RB
Intruder Watch Co-ord	Robert McKenzie VK7RB
QRM Editor	*Ron Churcher VK7RN

* Indicates sitting member of Council.

Silent Key

George Welch, VK2UN,

George Welch, VK2UN, became a silent key on 15 February 2001 at Terrigal, NSW, after a battle with cancer. George was born in England in 1920 and came to Australia with his family in 1928. During WWII he enlisted in the RAAF as an apprentice electrician and was discharged as a pilot. His working career was spent with ACI, from which he retired in 1983 as a project engineer. He was active in amateur radio circles for many years.

George is survived by his wife, Audrey - an ex-RAAF radio operator; two sons, Craig and Bryan; and a daughter, Pam. He will be sadly missed by all who knew him.

Many thanks for your anticipated publication of this information.

Sincerely,

Bill Gelvin, VK4AK

Beyond Our Shores

David Pilley VK2AYD
Davpil@midcoast.com.au

The information presented in this column has been obtained from the RSGB "Rad. Com", ARRL "QST" and weekly News Letters from Amateur Radio Societies.

IARU

It is sometimes good to be reminded of those who look after our Amateur Radio spectrum. The following is the statement found on the internet web site for the IARU

"Because it uses an international natural resource—the radio spectrum—Amateur Radio must organize nationally and internationally for better mutual use of the radio spectrum among radio amateurs throughout the world, to develop Amateur Radio worldwide, and to successfully interact with the agencies responsible for regulating and allocating radio frequencies." Our own WIA is an example of this organization on a national scale. "At the international level, national societies throughout the world work together for the international good of Amateur Radio under the auspices of a representative democracy, the International Amateur Radio Union (IARU)."

"Created in Paris, France, the International Amateur Radio Union has been the watchdog and spokesman for the world Amateur Radio community since 1925. The IARU Constitution, last amended in 1989, organizes the Union into three Regional Organizations that correspond to the three administrative regions of the International Telecommunication Union (ITU)."

LF-TO-LF Transatlantic Amateur Contact Is History

Amateur Radio history was made in February when amateurs in Canada and the UK completed what appears to be the first two-way transatlantic Amateur Radio exchange on 136 kHz. Larry Kayser, VA3LK, and Lawrence "Laurie" Mayhead, G3AQC, managed the LF feat using extremely slow CW that featured 90-second-long dits and 180-second-long dahs. The two-way contact took two weeks to complete.

Now – who said 5 wpm was slow..!

WWV Survey Planned

The National Institute of Standards and Technology plans to survey users of WWV and WWVH later this year. The time and frequency-standard stations have been airing occasional announcements about the upcoming poll in order to start building a mailing list of survey recipients. The announcements state that NIST "is seeking information on how listeners use the broadcast services offered on the WWV broadcast," but the survey will not begin for at least several weeks. NIST said their Web-based timer server gets in excess of 3 million hits a day. The survey will probably start in May and extend to September.

If you would be interested in assisting with this survey send your name and address to: NIST Radio Station WWV, 2000 E County Road 58, Ft. Collins, CO 80524, USA, or by e-mail to nist.radio@boulder.nist.gov

WWV in Ft Collins, Colorado, and WWVH on Kauai, Hawaii, broadcast continuous time and frequency information to millions of listeners worldwide.

Emergency Communcations

The ARRL has an on-line course called Introduction to Emergency Communications. These courses are on-going and are not just directed at Radio Amateurs in the U.S.A.. According to the ARRL News Letter, even a ham in Italy has been added to the growing list of foreign students "attending" this on-line course.

More information can be obtained from the internet at http://www.arrl.org/cce

USA ARDF Championships

The USA ARDF Championships will be held in Albuquerque, New Mexico on July 31 through August 4.

All ARDF enthusiasts world wide are invited to come and test their skills. For more information contact the sponsors, Albuquerque Amateur Radio Club at http://groups.yahoo.com/group/abqardf/files/web/index.html

For more information on Amateur Radio Direction Finding visit K0OV web site www.homingin.com

Congratulations

Congratulations go to Murray Greenman, ZL1BPU who won the QST Cover Plaque Award for his article on "MFSK for New Millennium" in the January issue of "QST". MFSK stands for "Multi-tone Frequency Shift Keyed" and is really a super form of RTTY. All you need to get into the action is a computer with a sound card and the software. The software is free and known at "Stream". You can obtain this software from www.qsl.net/zl1bpu/MFSK/Software/!StreamSeup083.EXE.

World Amateur Radio Day

World Amateur Radio Day is set for April 18. The IARU has selected the theme "Providing Disaster Communications: Amateur Radio in the 21st Century." They have also approved of the Disaster Communications Handbook for Developing Countries and the role of the Radio Amateur service is one of it's main points. With so many floods and earthquakes occurring around the globe this could be a useful handbook.

Hamvention

For those of you who are globe trotters, you may like to make a note in your diary that the Big Bash at Dayton, Ohio this year is scheduled for May 18 – 20. The Hamvention is the largest Radio Amateur Convention in the world. It provides educational forums and the opportunity to see the best in Amateur

equipment available. Over 500 equipment vendors exhibit here and of course there are acres and acres of flea market to enjoy.

Should you be travelling to Japan later in the year you might like to arrange your trip for late August as the Japan "Amateur Radio Festival" known as the "Ham Fair" will be held at the Pacific Convention Centre, Yokohama, August 31 through September 2.

Morse Code

In the March edition of "QST" there were 5 closely typed pages covering the minutes of the ARRL January Directors meeting. These are quite detailed. (WIA Directors please note). Morse Code was mentioned and the fact that at the WRC-2003 meeting it could be dropped completely. To off-set this, the ARRL is already preparing plans for HF band planning for the Novice operators. It is perhaps something we should be looking at here.

Travelling To New Zealand?

Did you know that New Zealand is one of very few countries in the world where licensed amateurs visiting from overseas can immediately operate without the hassle of getting a ZL licence and without paying a licence fee? A visiting amateur can walk down the gangplank from the arrival aircraft into the terminal building and start operating on 144 MHz and above with the callsign ZL/(homecall)! See: http://www.med.govt.nz/rsm/guide.html and also http://www.nzart.org.nz/nzart/nzart/recip.html

Hiking Hams Claim Pedestrian Mobile Distance Record

From the ARRL News Letter

Bonnie Crystal, KQ6XA, of San Mateo, California, and Max Pompe, ZL1BK, of Auckland, New Zealand, are claiming the record for the longest direct-path, pedestrian-to-pedestrian Amateur Radio contact. The two worked each other February 18 on 10 metres using compact SSB transceivers and homemade antennas.

On the New Zealand end, ZL1BK used a 1.8 metre (5 feet 11 inches) homebrew telescopic whip mounted on his Yaesu FT-817 running 5 W. Crystal had a 6 metre (19 feet 8 inches) fishing pole strapped to an aluminum pack frame and ran 20 W using a Vertex/Standard VX-1200 HF Manpack transceiver.

The 6500-mile contact began on 15 metres but ended on 10, because conditions were better there for that path.

Did any one ever claim a record for the longest distance using the famous Australian Treager Peddle Power Transceivers?

Amateur Radio Mounts Quick Quake Response

From the ARRL News Letter

Hams responded within minutes after an earthquake hit the Seattle area the morning of February 28. The epicenter was some 35 miles southwest of Seattle, but the quake was felt as far away as Salt Lake City. Washington Gov Gary Locke declared a state of emergency for western Washington.

By the weekend, Amateur Radio had scaled back its response as power and telephone service returned to the stricken region. Amateur Radio Emergency Service (ARES) and Radio Amateur Civil Emergency Service (RACES) teams in the quake zone were mobilized within minutes of the event. The Salvation Army Team Emergency Radio Network (SATERN) and the Military Affiliate Radio System (MARS) also activated.

Residents in the affected region now are picking up the pieces. Damage estimates could top $2 billion. Upwards of 350 injuries—a few of them serious enough to require hospitalization—were reported, but no deaths were directly attributed to the earthquake.

ARRL Western Washington Section Manager Harry Lewis, W7JWJ, reported that very soon after the quake struck, State RACES Officer Jim Sutton, WA7PHD, was on the air, handling net control duties for the Washington State Emergency Net on 75 metres from the State Emergency Operations Center at *Camp Murray*. Western Washington Section Nets also activated on HF SSB, and in the Seattle area, ARES volunteers had mounted an emergency repeater net with King County EC Rich Hodges, KB7TBF, and Lt. Russ Reed, N7NOV, of the US Coast Guard sharing NCS chores. Several other county ARES nets took to the air.

Amateur Radio operators also set up a temporary 2 metre net to assist the Red Cross with damage assessment. An unconfirmed report says one ham used an ATV link from a helicopter to the State EOC—where Gov Locke was on hand—to survey the damage below.

Eastern Washington SM Kyle Pugh, KA7CSP, said "a loose information net" also fired up on 40 metres to handle general inquiries and health-and-welfare traffic.

The Alaska Pacific Emergency Preparedness Net also took the airwaves on 20 metres (14.292 MHz). "The net was opened within minutes of the quake, and hundreds of messages were passed," said Bob Baker, NL7UH, in Anchorage, Alaska. Baker praised net participants for their "very highly professional manner. The net was formed after the 1964 Alaska earthquake, and it includes several net control stations in Alaska and in the "Lower 48."

The SATERN Net activated for about six hours on 20 metres (14.265 MHz), processing health-and-welfare information requests and handing out situation reports from Washington and Oregon amateur stations. "Scores of stations over the nation assisted in relay," said National SATERN Director Pat McPherson, WW9E.

Congratulations To Austria

This year the Austrian Amateur Radio Club (OEVSV) is celebrating their 75th year. The OEVSV is a fully voluntary organisation with some 3,800 members, representing over 70% of the Austrian Radio Amateurs. (WIA please note). Austrian Amateurs are licenced generally in accordance with CEPT and have 3 classes of licence. CEP1 is unlimited and similar to our own with telegraphy requirements. Class 2 does not require CW examination and is for frequencies above 30 mHz. The Class 3 is the Newcomer licence limiting the operation to 70 cm only, but with 100w permission. Each year they run a national contest on May which includes emergency communications with the government, military, police, Redcross, etc.. It makes for good relations. If you would like to learn more about the OEVSV you can obtain more from www.oesvs.at Remember though, it is currently in the German language. Hopefully soon it will be available in English.

Contests

Contest Calendar April – June 2001

Apr	7/8	SP DX Contest	(CW/SSB)	
Apr	7/8	EA RTTY Contest		
Apr	7/8	King of Spain Contest	(CW/SSB)	
Apr	13-15	Japan Int. DX Contest 20-10 m	(CW)	(Mar 01)
Apr	14	Holyland DX Contest	(CW/SSB)	(Mar 01)
Apr	21/22	YU DX Contest	(CW/SSB)	
Apr	25	Harry Angel Sprint	(CW/SSB)	(Apr 01)
Apr	28/29	SP DX RTTY Contest	(Mar 01)	
Apr	28/29	Helvetia DX Contest	(CW/SSB)	(Mar 01)
May	5	VK/Trans-Tasman 80m Contest	(CW/SSB)	(Apr 01)
May	5/6	Ten-Ten Intl. Spring QSO Party	(CW/RTTY)	
May	5/6	ARI Intl. DX Contest	(CW/SSB/RTTY)	
May	12/13	VOLTA WW RTTY Contest		
May	12/13	CQ-M Intl. DX Contest	(CW/SSB/SSTV)	
May	26/27	Anatolian RTTY WW Contest		
May	26/27	CQ WW WPX Contest	(CW)	(Feb 01)
June	9	Portugal Day Contest	(SSB)	
June	9	Asia-Pacific Sprint	(SSB)	
June	9/10	WW South American CW Contest		
June	9/10	ANARTS WW RTTY Contest		
June	16/17	All Asian DX Contest	(CW)	
June	23/24	Marconi Memorial Contest	(CW)	
June	23/24	ARRL Field Day	(All Modes)	

This month your support is asked for the annual Harry Angel Sprint, on ANZAC night, 25th April. We remember Harry as VK's oldest licensed amateur at the time of his death in 1998.

All you RTTY enthusiasts will be aware of the large number of contests for this mode in the near future. Please make these known to as many VKs as possible.

An advance warning — watch out for changes in the annual Jack Files Memorial Contest this year. This will be on first weekend in July only. Details here as soon as available.

Harry Angel Memorial Sprint

1100z - 1246z Wednesday 25 April, 2001

This is the third year of a Contest to remember VK's oldest licensed operator, Harry Angel. Please note the time length of the Contest - 106 minutes, Harry's age when he died in 1998. It is open to all appropriately qualified HF operators.

Object is to make as many contacts as possible on band 80 metres, using modes CW and SSB.

Categories: Single Operator (CW, Phone, Mixed) and SWL.

Frequencies: CW: 3500 - 3700 kHz, Phone: 3535 - 3700 kHz. Contacts in DX window not permitted. Exchange RS(T) and serial number; revert to 001 if 999 reached.

Score two points per CW QSO and one point per Phone QSO. Stations may be worked once only per mode.

Logs must show time UTC, callsign worked (both callsigns for SWLs), mode, RS(T), serial numbers sent and received for each QSO.

Send summary sheet showing name and date of Contest, name and callsign of entrant, category entered, address, equipment used, points claimed and a signed declaration that the rules and spirit of the Contest were observed.

Send logs to Harry Angel Sprint, PO Box 199, Wavell Heights, 4012, Queensland, by Friday, 25 May, 2001.

2001 VK/trans-Tasman Competition - Rules

Contest Date: 1st Saturday in May. 2001 = 5th May.

Time: 0800 UTC to 1400 UTC, (in 6 one hour stages).

Aims of Contest:

a).The VK/trans-Tasman Contest was conceived as a reciprocal event to the NZ Memorial Contest (held in July). The main emphasis is on VK/ZL, LSB contacts.

b). The scoring system was devised in an attempt to give all entrants a system that compensates for

(i) geographical location and usable band time, so as to give more equal opportunity, and thereby also encourage participation by VK's in Central and West zones.

(ii) promote trans-Tasman contacts, by giving bonus points for VK/ZL contacts.

(iii) provide some incentive for the astute Operator, by allocating additional bonus points each hour, for working multiple stations in any one call area.. The value of these bonus points has been structured to reflect the difficulty of the achievement, with regard to "Operator population densities" and distance.

c). promote/give recognition to QRP and 80m mobile operators.

d). As with the NZ Memorial Contest, provide a short event that doesn't impinge too much on family life or sleep time, while giving 6 hours of constant on-air activity.

General:

a). The Contest is open only to all VK and ZL callsigns.

b).The Contest shall be in 6 X 1 hour stages, and stations can only be reworked after the commencement of each hour. However, stations worked in the 5 minutes before the hour, cannot be reworked until 5 minutes after the hour.

A station can be worked on Phone and CW, during any one hour stage, only if the Operator is contesting both Categories.

c). Sequential numbers commencing at 001, shall be given and received for all contacts made during the Contest. (Use of RST numerals is NOT required).

d).Contest details; Rules and a suitable log sheet are available on the Contest web-site: http://home.iprimus.com.au/vktasman

Any queries or constructive criticism should be attached to the log, or e-mailed to vktasman@hotmail.com

Band: 80 metre band.

Frequencies: Phone: 3.540 to 3.625MHz.
CW: 3.500 to 3.550 MHz.

Modes: LSB (DSB optional for QRP); AM; CW

Max. TX Pwr: LSB: 100 watts pep. (QRP 5 watts pep, LSB or DSB).
CW: 100 watts pz.

Categories: Division 1. Single operator - Phone.
Division 2. Single operator QRP Phone, (also eligible for Div. 1)
Division 3. Stationary mobile, Phone, (also eligible for Div. 1)
Division 4. Single operator - CW.

Scoring:

a).VK shall be divided into 3 zones (for scoring purposes):

"East" = VK1, VK2, VK3, VK4 (south of Tropic of Capricorn),VK7 and VK9.

"Central" = VK4 (north of Tropic of Capricorn); VK5 and VK8.

"West" = VK6 and VK0.

***Note**: Assume usable band time is after 7pm local Therefore: ZL has 6hrs(all after 8pm) VK/East has 5 hrs VK/Central 4.5hrs VK/West has 3hrs*

b). **VK to VK** = 3 pts

VK/East to ZL = 5(distance)+1(band time) + 5(bonus) = 11pts

VK/Central to ZL = 7(distance)+2(band time) + 5 (bonus) = 14pts

VK/West to ZL =10(distance)+5(band time)+5(bonus) = 20pts

ZL to ZL = 3 pts

ZL to VK/East = 5(distance) + 5(bonus) = 10 pts

ZL to VK/Central = 7(distance) + 5(bonus) = 12 pts

ZL to VK/West =10(distance) + 5(bonus) = 15 pts

(5 bonus points awarded for each trans-Tasman contact).

c) During each 1 hour segment, additional bonus points shall be awarded as follows, (allowing for distance/Operator density)

VK working 4 X **VK** call areas = 20 bonus points

VK (East) working 4 X **ZL** call areas = **40** bonus points

VK (Central) working 4 X **ZL = 50** bonus points

VK (West) working 3 X **ZL = 50** bonus points

ZL working 4 X **ZL** call areas = 20 bonus points

ZL working 4 X **VK (East)** call areas = **40** bonus points

ZL working 4 X VK **(Central and/or West)** call areas = **50** bonus points

All contact points should be calculated after the Contest.

Bonus points (para c.) for each hour of the Contest, should be entered at the end of the log, above the score total.

Logs:

a) For each contact, logs shall record callsign of station worked; numbers given and received, and UTC time.

b) A spare column shall be included at the right of each entry,for contact points score, - (should be completed after the Contest).

c) On each page, leave one spare line at the bottom of each points score column, for score sub-totals.

d) Logs, or log entries that are not clearly legible, in the opinion of the Contest Manager, will not count.

Log Summary:

Logs shall be accompanied by a Summary showing the Operator's Name; Address; Callsign; Category(s) entered, and total points score claimed.

Lodgement of Logs

Logs must be received either by post, to:
VK/trans-Tasman Contest,
28 Crampton Crescent,
Rosanna, VIC. 3084 Australia.
or, by email to: vktasman@hotmail.com

Note: Closing date for receipt of Logs shall be 0700 UTC, **10th June.**

Operators are requested to submit their logs (even if you don't think you will win). This will justify the effort and expense involved by the Contest Manager, and ensure the on-going success of the Contest.

Awards:

VK/trans-Tasman Trophy: 1st Phone score.

Certificates: 2nd and 3rd Phone score
1st QRP score
1st 2nd and 3rd CW score
1st VK phone score
1st ZL phone score
1st mobile score

(Night-owl's award) Top score in last hour

Publication of Rules and Results:

a). Rules will be published in the WIA "AR" and NZART "Break-in" magazines.

b). Results will be published in "AR", "Break-in" and "Radio & Communications" magazines.

c). The first 10 place getters in each Division will be published on the Contest web-site no later than **20th July 2001**.

Results of 2000 John Moyle Field Day Contest

Thankyou to all who took part this year, a total of 41 logs received, 11 of which were received by e-mail.

Scores in the 24 hourMulti-op section were down this year ,with VK3ER taking first place with 8,044 points, followed by VK3CNE and VK4WIS with 4,296 and 3,970 points respectively.

The President's Cup was won by VK3YE/p, Peter will receive an individually inscribed wall plaque as permanent recognition.

The leading home stations are ZL2AWH with 329 points, and VK3CAT with 198

Points. On behalf of the operators who were portable our thanks to the home stations

for your support during the contest.

Results are in the following order: Callsign, Mult/Single, Mode, Band and Score.

Certificate winners are highlighted with an Asterisk (*).

Portable, Six Hour

VK3BEZ	Multi	All Mode	All Band	1552	*
VK5SR	Multi	All Mode	All Band	998	
VK7CHT/3	Multi	All Mode	All Band	142	
VK3FH	Multi	All Mode	HF	76	*
VK8DA	Multi	All Mode	HF	18	
VK3YE	Single	CW	HF	20	**
VK5EX	Single	Phone	All Band	130	*
VK2WF	Single	Phone	HF	100	*
VK6MM	Single	Phone	HF	2	
VK3GK	Single	Phone	VHF/UHF	1458	*
VK3YZR	Single	Phone	VHF/UHF	868	*
VK3JKI	Single	Phone	VHF/UHF	460	*
VK3KAI	Single	Phone	VHF/UHF	420	
VK3PRA	Single	Phone	VHF/UHF	200	
VK3HEN	Single	Phone	VHF/UHF	30	

Portable, 24 Hour

VK3ER	Multi	All Mode	All Band	8044	*
VK3CNE	Multi	All Mode	All Band	4296	*
VK4WIS	Multi	All Mode	All Band	3970	*
VK2HZ	Multi	All Mode	All Band	1794	
VK4BAR	Multi	All Mode	All Band	1122	
VK4WIL	Multi	All Mode	All Band	980	
VK2ADX	Multi	All Mode	All Band	770	
VK3LY	Multi	All Mode	All Band	622	
VK5BAR	Multi	All Mode	HF	670	*
VK4IZ	Multi	All Mode	HF	532	*
VK4CHB	Multi	All Mode	HF	484	
VK7OTC	Multi	All Mode	HF	96	
VK3DPW	Single	All Mode	All Band	718	*
VK4OE	Single	Phone	All Band	1406	*
VK5UE	Single	Phone	All Band	282	
VK5AIM	Single	Phone	All Band	270	
VK4EV			HF	144	*
VK4IS			VHF/UHF	690	*

HOME, 24 Hour

VK3DID	Single	All Mode	All Band	66	*
VK4PJ	Single	All Mode	All Band	36	
VK5RG	Single	All Mode	All Band	32	
VK3PP	Single	All Mode	All Band	21	

SWL, 24 Hour

Roy Ford	Single	All Mode	All Band	184	*

Check Logs: VK2DKD VK4APZ VK5BR

Comments on the Logs.

It would be appreciated if all logs contained the following information.

Front Cover Sheet: Callsign, Name, Mailing address, section entered, number of contacts Claimed score, location of station in contest, equipment used and the usual declaration.

Headings for Log Sheets.

TIME BAND/MODE CALLSIGN #SENT #RXD LOCATION / DISTANCE POINTS

Log times in (UTC or GMT) not your local time, overall most logs contained all info thanks.

Just as a side issue in previous Field Days I have used RACQ Road Maps with the distances (50, 100 and 150 kilometers) marked on them to calculate contact distances.

Some comments from Logs.

Although hearing VK& repeaters (2m and 70cm) no simplex QSOs resulted, it was good to work VK5SR on 2m and 70 cm,band conditions were good but not many people around. *VK3GK*

I didn't find out until a few days before the contest and wasn't sure if it was worth doing on a hand held In the country, low outout power didn't help as I could hear stns from all over Victoria. Half the fun was putting gear together suiteable for transport on a trailbike and heading bush on fire trails, I had a lot of fun and found a good spot for next year. *VK3HEN*

Thankyou for your patience whilst waiting for these results, I've had a career change (becoming redundant and starting in a totally different area). I also had too many irons in the fire so AR had to take a backseat.

Certificates will be forwarded in due course.

73, Eric Fittock.

World Radio Conference 2003

With this important meeting looming, how does the WIA, your Wireless Institute of Australia fit into the overall scheme of things? The WIA is a participant in the ACA Australian Radiocommunications Study Groups Committees (ARSGs).

The ARSGs have an important role in preparing proposals, briefs and recommendations to the ITU-R and various conferences including WRC2003. They provide a forum for industry and government organisations to interact, debate and exchange ideas regarding radiocommunications matters. Study group ARSG 8 handles Mobile, Radiodetermination, Amateur and Related Satellite Services. Chairman is Mr Len Bray Spectrum Planning / ACA E-mail: len.bray@aca.gov.au

Recognising the diverse range of issues encompassed within that international study group, the load is distributed across two working groups and the one which includes Amateur Radio is chaired by Mr Garth Jenkinson Telstra Research Laboratories, E-mail: garth.jenkinson@team.telstra.com Participating organisations of this working group include: Australian Communications Authority, CSIRO, Department of Defence, Motorola Australia Pty Ltd., NZ Ministry of Commerce, Telstra Corporation Ltd., Wireless Institute of Australia (sourced from www.aca.gov.au/committee/national/arsg.htm)

Sourced from Qnews 1/04/01

DX Notes

Ross Christie, VK3WAC
19 Browns Road, Montrose 3765, Vic.
Email Vk3wac@aol.com

Extreme nostalgia

Some people have a really strong hankering for the 'good old days' and how things used to be, while others carry nostalgia to extreme limits. While searching for some interesting news on DX I found the following piece in a recent copy of The Daily DX published by Bernie McClenny, W3UR.

"Bob Denniston, VP2VI, is going to mount a DXpedition called 'gone waki' (a play on words meaning 'gone crazy') in an attempt to recreate some original operating conditions. Bob was due to operate from his QTH at Tortola, British Virgin Islands over the weekend 10/11th of March. He is so intent on recreating 'original conditions' that he will be using basic equipment comprising 100 watt into 66 foot and 138 foot wire antennas, a hand key (good man!), a Meissner Signal Shifter (can anyone enlighten me on this item?), a homebrew amplifier and an SX28A receiver. While Bob was reminiscing he remembered that the term 'DXpedition' was coined by his friend CM9AA." I didn't manage to work Bob but if he was on the air I bet he had a 'good old time'!

Did anyone manage to work the St Peter and St Paul Rocks DXpedition station PW0S? Brazilian amateurs Jim PY7XC, Ciro PY7ZY, Eli PT7BZ and Andre, PY0FF mounted this DXpedition on a shoe string budget. The 'rocks' are actually the rim of a submerged volcano about 1000km off the eastern coast of Brazil. They are very isolated and landing is extremely dangerous. Once you successfully set foot on the island you are then faced with the daunting task of finding a level area to pitch camp. This small DXpedition ran a real risk of losing or damaging their equipment and ran a significant risk of injury, or perhaps worse! There is an official PW0S website at www.soutomaior.eti.br/paginas/dx.htm

The team used a 49 foot motor/sail boat called "Old Smuggler" to reach the 'Rocks'. It took them 6 days to arrive and then they had to wait for a further 3 days for the seas to subside enough for them to land safely. Three days on such a small boat in the middle of a stormy South Atlantic could not have been a very pleasant experience! While ashore the weather didn't seem to abate very much and operations were interrupted by high winds, heavy rain and lightning.

Their final tally of QSO's came to approx. 7800. This is not a record by any means but under the circumstances a very respectable result. For the dedicated DX'ers amongst us it was a chance to work a rare new country or perhaps on a needed mode. The team deserves a big thank you for a job well done and some sincere respect for their success under such difficult and dangerous conditions.

At the planned finish of the operation the weather was still bad enough to make the job of packing up and re-boarding the boat very dangerous. Their bad luck continued on their return trip. The boat developed problems and could not return them to their port of departure and they had to fly home from Fernando de Noronha to Recife. Due to the severe weather they were days late in returning to their families and their jobs. The weather, directly and indirectly, caused the cost of the DXpedition to far exceed there allocated budget. Those VK amateurs who managed to get in the PW0S log can QSL via the address below and perhaps show some appreciation or support any way they can.

PW0S Operators: Jim Faria, PY7XC (Leader), Ciro da Silva, PY7ZY; Eli Pinheiro, PT7BZ; Andre Sampaio, PY0FF.

PW0S QSL Manager: Steve Wheatley KU9C, PO Box 5953, Parsippany, NY 07054 USA

The DX

A5, BHUTAN. Charly, K4VUD (also A52UD) has reported that Kesang, A51KC, who is newly licenced, is willing to make skeds for contacts on the 10m (he can only operate SSB) via E-mail. Kesang's E-mail address is as follows, sophun@druknet.net.bt [TNX OPDX]

CE0, EASTER ISLAND. There have been a number of rumours that some operation will take place from here between 29th of March until the 9th of April. The operators will be Arliss, W7XU and Holly, N0QJM. 6 metre operation will be very high on their agenda. [TNX OPDX]

EM, ANTARCTICA. Paul, UX2HO, is now active signing EM1HO. He is located at the Ukrainian Base on an Argentine Island in the Antarctica. He arrived on the island a few weeks ago and is active on HF with 200W and a vertical. He is also active on 6 metres with 100W to a simple dipole. He plans to eventually raise a 4 element yagi on six metres in the near future. On HF, he will be on SSB, CW, RTTY and PSK31. Paul will be stationed in Antarctica one year. QSL via I2PJA. [TNX K0YR and OPDX]

GM, Scotland. Jim, MM0BQI (http://www.qsl.net/mm0bqi) will be operating as MM0BQI/p from the Tanera Mor (SC10) in the Summer Isles (EU-092) during the upcoming Scottish Activity Weekend on the weekend of 21st – 23rd April. He plans to be active on all bands from 80-10 metres operating all modes including RTTY and PSK31. The activity weekend is sponsored by the GMDX Group. Jim also plans to get back to EU-092 between 27th of July and the 3rd of August and will participate in the IOTA Contest. His aim is to activate some other nearby islands. QSL via MM0BQI either direct (Jim Martin, 3 Lismore Avenue, Edinburgh, EH8 7DW, Scotland) or through the RSGB bureau.

[TNX MM0BQI and 425 DX News]

HZ, Saudi Arabia. Joe Musachia, W5FJG (ex KA5ZMK, EL2JM, JY9ZK) is employed by the US State Department and is currently attached to the American Consulate in Jeddah, Saudi Arabia. He will be there for the next two years. Joe has recently obtained permission from the Saudi Government to operate from the Consulate using the call 7Z1AC. Joe plans to be on the air beginning sometime in mid April. QSL arrangements are currently via WA4JTK but may change in future. Joe's web page is as follows http://sites.netscape.net/joeyjeep99usa/homepage. Logs will be available for checking on the page along with operating updates. [TNX W5FJG/7Z1AC and 425 DX News]

S9, SAO TOME & PRINCIPE. John, W7KNT, is letting us know that Tom, W7LUU, is now on the air as S92TX. Tom will be mainly on the 10/15/20 metre bands running SSB; he also plans to be active on 6 metres as well. He has been working at various locations throughout the world for the US State Department and the Voice of America for the last 12 years. His latest assignment just started in Sao Tome & Principe and he should be spending the next 2 years. QSL is via W7KNT who is his QSL manager. John also says that he is planning a trip there himself and will be there for about a month in the northern autumn, or perhaps February 2002, to work the pileup's. [TNX OPDX]

TR, GABON. Xavier, TR8CX, has been very active on 10 metres FM in the past few weeks. If you want to try some long distance FM work then listen around 29175 and 29235 kHz between 1200-1600z. [TNX OPDX]

TX, New Caledonia. Jacky Calvo, F2CW is operating as TX5CW from New Caledonia. Jacky, F2CW and Dany/F5CW, along with a couple of other operators, will be active from the Chesterfield Islands (OC-176) between the 24th of April and the 8th of May. [TNX The Daily DX and 425 DX News]

V4, ST. KITTS AND NEVIS. Joe, VE3B plans to be active from here as V47CA from the 9th to the 24th of April. There will be activity on all HF bands plus 6 metres. They will be running a TS690, an AP8A vertical and a 3 element beam on 6 metres. The main mode will be CW. [TNX VE3BW and OPDX]

IOTA Activity

EU-092. Jim, MM0BQI is planning some operating from EU-092 between 27th of July and the 3rd of August and will participate in the IOTA Contest. His aim is to activate some other nearby islands. QSL via MM0BQI either direct (Jim Martin, 3 Lismore Avenue, Edinburgh, EH8 7DW, Scotland) or through the RSGB bureau. [TNX MM0BQI and 425 DX News]

AS-062. Alex, RU0LM, will again be operating as RU0LM/0 from Shikotan Island for a period of approx. two months. QSL via UA0MF: Mike Filippov, P.O.Box 20, (note; not 29), Vladivostok, 690021, Russia. [TNX OPDX]

OC-087. Tom, K7ZZ, has confirmed the V73E operation from Enewetak Atoll (OC-087) Marshall Islands is scheduled to run from the 19th till the 26th of April. The team members are Dave, V73UX/WW2AVG, George, V73GT/AH8H, Tom, V73ZZ/K7ZZ and Jim, W7UG. The team plans to operate on SSB, CW and RTTY on all bands from 80m to 6m. Two stations will be operating with amplifiers, a tribander, multi-band verticals and wire antennas. QSL to WF5T direct or via the bureau. [TNX 425 DX News]

AN-013. LU, Antarctica. The GACW expedition to Vicecomodoro Marambio Base on Seymour Island has been suspended. The trip was tentatively scheduled to take place in March 2001. Unfortunately the icebreaker that was to have transported the group is currently under repair and will not be available for service until the Antarctic summer is over. However the trip is being planned for next season. [TNX WC6DX, Islands On The Web and OPDX]

Special Events

Roman, RZ3AA, has been given permission to use the call R73A. This special call has been issued for the year 2001 to Roman to celebrate his 25th anniversary as a radio amateur. If you hear him on the air give him a call. QSL to RZ3AA (Roman Thomas, P.O. Box 38, Moscow, 129642, Russia). [TNX RZ3AA and 425 DX News]

The special event station IR0MA will be active throughout April. The station is celebrating the 2754th anniversary of the foundation of Rome. QSL is direct only to I0MWI, Stefano Cipriani, Via Taranto 60, 00055 Ladispoli - RM, Italy. [TNX I0MWI and 425 DX News]

DXpeditions

3B6, AGALEGA. The team has added 4 new members, close to the maximum number of 20 operators. The new members are as follows Steve (N3SL), Stefan (SP9RTI), Leonid (4Z5FL) and Antonio (CT1EPV). The other crew members will be Rene (HB9BQI), Christine (HB9BQW), Hans-Peter (HB9BXE), Hermann (HB9CRV), Cedric (HB9HFN), Karl (HB9JAI), Friedhelm (HB9JBI), Jacky (3B8CF), Luis (CT1AGF), Matthias (DL3KUD), Mart (DL6UAA), Jack (F6HMJ), Derek (G3KHZ) and Ken (NK6F). Tom (9A4DU) had to withdraw from the DXpedition to continue his studies in Florida during the time the expedition is planned to take place. The 3B6RF team is now scheduled to arrive at Agalega on the 3rd of May and operations should begin on the 5th for two weeks. The 3B6RF Web site is at: http://www.Agalega2000.ch

While not a full blown DXpedition there will be a limited operation from Mellish Reef coming up soon. **VK9M, MELLISH REEF** will be mounted by the VK9WI team who brought you Willis Island in May 2000. Team members will comprise David, VK4ZEK, Alan, VK4BKM, Peter, VK4APG and Harris, VK4CWT. They plan to be active on Mellish Reef from the 21st until the 24th of April. Activity will take place on all bands from 80m – 10m plus 6 metres. The trip will serve as a survey to help plan a larger "full-on" DXpedition to Mellish Reef in either late 2001 or early 2002. The team plans to be on the reef for approximately four days only. There will be one HF station operating continuously along with one 6m station. For the latest news on the VK9ML Melissa Reef Site-Survey/Activation in April 2001, visit the VK9ML Web site at: http://www.qsl.net/vk9ml Suggested frequencies are as follows: CW - 3504, 7025, 14025, 21025, 28025, 50105 kHz and SSB - 3799, 7085, 14195, 21295, 28480, 50145 kHz. [TNX OPDX]

VP8, FALKLAND ISLANDS. Look for 4 members of the GMDX to be active from the Falkland Islands (SA-002) as VP8SDX, between April 23rd and May 8th. The operators will be Rob, GM3YTS, Jack, GM4COX, Tom, GM4FDM and Gavin, GM0GAV. They plan to have 2 stations active. Their main focus will be on CW, LF and the WARC bands. QSL via GM4FDM. Further information can be found on the Web page at: http://www.hfdx.co.uk/vp8sdx

Round up

CIS AWARD. A new award 'The Radio Amateur's Diploma of the Commonwealth of Independent States' is sponsored by the "Funkner DX Family" amateur radio club (RZ3DZZ) and is available to licenced amateurs and SWL's for contacting or hearing 12 stations located in the twelve CIS countries. QSL cards are not required. For further information on the award contact fdxf@aha.ru [TNX RN3FX and 425 DX News]

PSK31 AWARD. The Penn-Ohio DX Society (PODXS) has something operators of PSK will enjoy working for. The "PODXS" has a free 070 Club PSK Award program available. For more information about the "PODXS" and the 070 Club PSK Award visit their Web site at the following address, http://hometown.aol.com/n3dqu/podxs.htm [TNX OPDX]

QSL VK0MM. Alan has announced the QSL route for his VK0MM activity from Macquarie Island. Please QSL direct to his QSL manager, VK4AAR, Alan Roocroft, P.O. Box 421, Gatton, QLD 4343, Australia. He says all excess proceeds from the QSL'ing process will be donated to Camp Quality, a very worthy charity, providing care for children with cancer and other terminal illness. The log for the operation has been carefully checked, however if you receive 'Not In Log' and you are certain that you had a QSO with VK0MM then you should contact Alan via E-mail (vk0mm@yahoo.com) and he will double check the original log in case of a typo. [TNX 425 DX News]

I read a short note in a 425 DX News bulletin regarding the future of the Morse code in the USA. The ARRL has issued a short piece of text that states the following.

"ARRL Board of Directors has approved a resolution that "recognises and accepts" the Morse requirement likely will be dropped from Article S25 of the international Radio Regulations at the 2003 World Radiocommunication Conference.

The Board's Morse code resolution declared that deletion of the Article S25 international requirement at WRC-03 "should not automatically or immediately mean a similar removal of the Morse code from Part 97 of the FCC rules."

Morse code, the Board affirmed, "should be retained as a testing element in the US." (From ARRL)"

As there are a very large number of amateurs in the USA it would be safe to assume, with the popularity of reciprocal licencing, most other countries will retain Morse code to some degree to maintain licence equivalence.

Indian amateurs have been granted an extension to their use of 3790 – 3800 and 10100 – 10150 and 50.350 MHz and 50.550 Mhz. They will be allowed to operate on these frequencies until 1830z on 31 July 2001. [TNX VU2JOS and OPDX].

I received E-mails from a couple of people containing the sad news of the death of Bill Orr, W6SAI.

"Amateur Radio legend William I. "Bill" Orr, W6SAI, of Menlo Park, California, died in his sleep on January 24. He was 81.

Most of us will own, or at least have read, one of his 'classic' books on radio construction or antennas and found them excellent sources of information and ideas. Our sincere condolences are extended to his surviving family.

And finally, a quick note from Bill Norris, VK1WN, who says that he uses an E-mail form of QSL'ing that is available at www.eQSL.cc. The service is free (although donations are welcome). Being basically an E-mail, QSL returns from other hams using the service, or something similar, should be very quick indeed. As bill says " It is free and fast, what else can you ask for?" This form of QSL'ing has been around for a couple of years now and it is rapidly gaining a foothold in DX circles. I wonder how long it will take before the E-mail QSL replaces the current card form? It would be a safe bet to say that there is currently logging software under development that will allow QSO details to be exported to an E-mail QSL program.

Sources

This month our thanks go to K4VUD, UX2HO, K0YR, MM0BQI, W5FJG, W7KNT, F2CW, VE3B, RU0LM, K7ZZ, WC6DX, Islands On The Web, RZ3AA, I0MWI, OPDX, 425 DX News and The Daily DX.

Silent Key

James George Cowan VK2ZC 22/6/1908—27/7/2000

It is with deep regret that I advise that Jim Cowan VK2ZC became a silent key on the 27/7/2000. Jim was born in Scotland and arrived with his parents in Melbourne on Melbourne Cup day 1912, and then went to Newcastle with his parents where he lived for the rest of his life. He started school at Waratah and was noticed by a neighbour who noticed his interest in electrical thing so gave him some LeClanche batteries. Being curious he touched the leads to his tongue and said he considered he had a taste for electricity. Graduating from Waratah school he went to Wicham Technical School and in the lunchtime break would cross to the newsagent to buy Wireless World magazine.

He made his first crystal set at the age 12. With only static and passing ships to hear he soon mastered the morse code. Whenever a ship came into Newcastle he would always try to meet the radio operator. Graduating from Wicham Technical school he became apprenticed to a fitter & turner. Still very keen on radio he obtained an experimental receiving license . On completion of his apprenticeship he was unemployed because of the depression. A Newcastle dealer of imported radios employed him to service some radios.

He joined the WIA as an associate in 1933 and gained his AOCP in 1934 with the callsign VK2ZC. He was offered a job at 2KO by Allen VK2KB. Although now in commercial radio his amateur radio activities were always prominent. He was very active in working dx. In later years he was active on satellites and computers and was active till the 26th July 2000.

Jim's wife passed away in 1992. Jim is survived by his daughter and her family who live in Scotland and his son Doug and family who live in Newcastle. Many amateurs and friends attended his funeral on the 31st July 2000.

Farewell Jim; you will be sadly missed. Bill Hall VK2XT

Spotlight on SWLing

Robin L. Harwood VK7RH

Well a quarter of the year has already slipped by and shortwave still is very interesting. Swiss Radio International (SRI) based in Berne, the nation's capital , only has one sender left on Swiss territory. It mainly utilises senders in Germany, Singapore and French Guiana and also, I think, South Africa

There have been rumblings for some time over the English language programs concentrating exclusively on News and Current Affairs with many of items relating to Swiss culture and events being dropped, especially the Swiss folk music which was a music bridge between the various language formats.As one American listener recently remarked, listening to SRI now is indistinguishable from many of the other European stations.

Austria, which is Switzerland's neighbour, reduced their transmitter output due to budgetary constraints. Now the Seventh Day Adventist Church are going to utilise the senders for their programming to Europe and the Middle East. According to a recent press release I received:

In announcing this new information yesterday, Mr Greg Hodgson, Director of Engineering for the AWR System, stated that usage of the relay facilities in Austria will give AWR added flexibility in covering the desired target areas, due to the fact that one of the main antennas at Moosbrunn is rotatable. The transmitter for these new AWR broadcasts is a 500 kW unit operating with 300 kW output. The new transmission period commenced on Sunday March 25 and AWR is taking out a daily 12 hour relay from Moosbrunn for coverage into frica, the Middle East, and Pakistan. The antenna beam will change throughout the broadcast day and the same transmitter at 300 kW will change frequency according to propagation conditions. An additional AWR service from Austria will commence on the sameday, Sunday March 25 from the other 500/300 kW transmitter at Moosbrunn with an omni-directional antenna. This will carry AWR programming to Europe morning and evening in English and German. The AWR DX program, "Wavescan" will feature in this new programming for Europe in the English broadcasts on Sundays.

The transmissions via Slovakia were discontinued on 24th March and AWR will also be continuing using the Sentech facilities in South Africa and the Juelich site in Germany and from their own senders in Italy and Guam. AWR sold their Costa Rican sender to an American televangelist, Dr. Gene Scott A satellite link will be used to feed the programs and it is intended to replace it later by soundfile distribution through the Internet.

Another evangelical group, Trans World Radio is also using the Austrian senders for up to 75 minutes between 1400 and 1700 UTC on 9745.

New Zealand has made some frequency changes and has opted for lower Channels during the Southern Hemisphere winter. Here is their schedule:

0459-0705 All Pacific 15120

0706-1105 All Pacific 11720

1106-1305 East Timor & NW Pacific 11720

1305-1650 OCCASIONAL - to All Pacific 6095

1651-1850 NE Pacific / Samoa / Cook Isles 6095 (weekday only)

1851-2050 All Pacific 15120

2051-0458 All Pacific 17675

15175 has been beaming to the NZ troops on duty in East Timor and has been providing good signals here compared to 17675 which is not as reliable in the daytime. 11720 is certainly an unusual choice as it has been used for some time by the VOA relay in the Philippines also to Asia.

As I have been mentioning in this column, there is an anti-Iranian clandestine operation transmitting on very odd channels. I had mentioned that they were heard within the aeronautical allocations on 8 and 10 MHz. They must have been causing some interference because they are now gone. However another mysterious station has appeared simultaneously on three channels, endlessly broadcasting sentences or phrases. It now has been tentatively identified, thanks to the Cumbre DX Group as "Sedye Mujahid". The organisation backing this goes under the initials of MEK or Mujaheddin e Khalq. It must be a terrorist organization because the British Home Secretary announced it being as such and banned it from operating within the UK. This station is identical to that of the signal I was hearing on 8850 but in a very different format.

My informant says that the senders are based in Iraq and are between 10 and 50kW. The Iranians are particularly sensitive to these transmissions, putting up severe bubble jamming, which can spread over 30 kHz. You can hear the clandestine and the accompanying jammers on these channels, 8600, 10080 and 12450 kHz from 2045 UTC or earlier, running through to past 2200.

The transmissions seem to be in 15-minute slots and seem to be in a loop.

There is no music, only a male or female reading out sentences.

Inexplicably the jammers are usually not there on Sundays.

I can hear Radio Australia on 15240 kHz around 0900z from two separate locations. The Shepparton site comes in plus the same program is being relayed from Taiwan yet is about 500 ms behind the Shepparton signal.

It is quite a mess. Also it appears that relays from the VOA/RFE sites

In Saipan and Tinian, were cut back.

Taiwan has an extremely strong signal on 11550 kHz. Between 0800 and 0900, it relays Radio Australia's Indonesian Service and Portugal was using it after to broadcast to East Timor, but I now believe that local FM relays are now available in Dili. Taiwan is heard clearly on 15060 in a Chinese dialect at 0930. Radio Taiwan International (RTI) is on 9610 and 7130 in our local evenings yet the former channel also has a Chinese mainland domestic sender plus Beijing being either side of the channel.

Well that is all for this month. Until next time, the very best of listening!

Robin L. Harwood VK7RH

Awards

John Kelleher VK3DP, Federal Awards Officer
4 Brook Crescent, Box Hill South Vic 3128, (03) 9889 8393

Firstly, I must apologise for the publication of erroneous material regarding the Zone 29 Award in a previous issue of this magazine. It must be established that I am operating from a 1997 issue of the K1BV International Awards Directory

Readers of this column will recall that from time to time I have pleaded for current information on all local awards. I have even offered free publication and endorsement of any or all local awards. To their credit, the WA division of the WIA have proffered a fully up to date resume of the abovementioned Zone 29 Award. Naturally, I would be remiss if I didn't publish it in full. Follows.

The Zone 29 Award.

The Zone 29 Award is offered by the Western Australian Division of The Wireless Institute of Australia, to all licensed radio amateurs and SWLs throughout the World.

To qualify, the following conditions must be satisfied.

1. Establishment of two-way communication with any 25 different amateur stations located in CQ Zone 29. Only contacts made after 0800 UTC on January 1 1952 are valid.
2. The total of 25 different stations may be obtained by operation on one or more of the authorized amateur bands as applicable at the time of the claimed contact. Cross-band contacts will NOT be accepted.
3. Any type of emission as permitted by the local licensing authorities at the time of the claimed contact may be used. Cross-band not permitted.
4. Applications containing multi-band and multi-mode valid contacts will be accepted, but the award will be issued with no endorsement.
5. Special endorsements as listed hereunder, will be displayed on the Award Certificate, where applicable, when all valid contacts fulfill the following conditions.
   (a) Single Band Multi-mode
   (b) Single Band All Phone
   (c) Single Band All CW
   (d) All Phone Multi-band
   (e) All CW Multi-band
   (f) Other special endorsements – As considered to be outstanding or unique.
1. Short-wave listener applications will be accepted, and the Award Certificate
   Issued with appropriate endorsements as applicable. When all conditions listed above are complied with.
2. QSL cards are not required as proof of valid contacts, but the application must
   Show that log extracts have been examined and verified by two other radio amateurs, or the Awards Manager of the applicant's IARU affiliated radio society. A simple declaration that the applicant's station has conformed to all licensing regulations as related to his/her operation is mandatory.
3. The fee for the award shall be Aus$2.00 or 5 IRC's for overseas stations.
4. Essential information required must include : Call sign of station worked/heard, Band (MHz), Mode used, Date/Time UTC.

Standard-form application sheets are available on request, or by a .doc or html file from our website: vk6wia@iinet.net.au

Applications should be addressed to:
Award Manager, Zone 29 Award
WIA Western Australian Division
P.O. Box 10
West Perth WA 6872

PSK 31 Award :

The Penn-Ohio DX society has a free 070 club PSK Award programme available. Visit their website at: http://hometown.aol.com/n3dqu/podxs.htm

VRZA Award.

Contact 4 of the following stations: PI50VRZ/A, PI50CQP/A, PI50V, PI50R, PI50Z,and PI50A; during 2001. QSL is via PI4 (club call). Applications must be verified by two other licensed amateurs, and be accompanied by a fee of 5 USD.

The Award Manager is :-
Ben Horsthuis PA0HOR,
Fr. Halsstraat 95
3781 EV Voorthuizen
The Netherlands.

A short summary of International Postal Charges as from July 1 2000.

Weight Asia/Pacific Rest of World
Up to 50g $ 1.00 $ 1.50
50 to 125g $2.00 $3.00
125 to 250g $3,00 $4.50
250 to 500g $6.00 $ 9.00

Air Mail letter charges includes all letters up to and including a maximum size of 200mm X 360mm X 20mm.

Aerogrammes : To any destination 78c each or $7.30 per pack of 10.

** Postcards/Greeting cards up to 20g : To any destination $1.00 each.

Seasonal Greeting cards : Applies to greeting cards only during November and December. Cards must be in a sealed envelope, endorsed Card Only.

Maximum weight 20g Maximum size 130 X 240mm Charge : 80c each.

International Post and GST.

Unless indicated otherwise, International Post charges are GST free. A new range of specially designed stamps for International postage is now available.

Best Regards es 73 de John, VK3DP

Advance Notice

NERG Novice Classes

We'll be holding classes again this year, commencing mid-May. Classes are held at the club rooms in Watsonia, and run for about ten weeks.

Enquiries:

Stephen Warrillow, NERG Course Co-ordinator VK3JNH

03 9436 0435

Repeater Link

Will McGhie VK6UU
21 Waterloo Cr Lesmurdie 6076
will2@iinet.net.au VK6UU@VK6BBR

VK6RBP

The International HF beacon VK6RBP has been showing some unusual behavior for a while, with gaps in the switched power levels between 100 watt and 0.1 watt and the callsign also missing bits from time to time. An E-mail from John W6JZH informed me that this is a fault with the TS50 and the replacement of some components should solve the problem. The parts are on the way and with the aid of a microscope and some surface mounting tools, hopefully the beacon will be back in service running as it should. For the moment, the beacon is being left on air as it is still providing some useful propagation details.

HF Gateway Delays

The license for the 40 metre HF gateway is still awaited. This saga is starting to look like the 29 MHz gateway saga of a few years ago. That one took 5 years and so far the 40 metre HF gateway saga is over two years now with requests to the ACA, of what is happening, being referred to Canberra but no response forthcoming.

Unless you have the time to ride a particular idea all the way through with constant harassment of the bureaucratic structure little happens and the years just roll on by. Time to do some harassing.

Advance Notice

ALARA Contest

Now August 25 and 26.

Details in May AR

Will's Waffle

Interesting discussions with our editor Colwyn as to changing my input to Amateur Radio magazine, from its voice repeater orientated perspective, to some other form. As readers have noticed, voice repeaters take up less and less of my time with interests diverging into many non-amateur interests. The mid life crisis time perhaps. Projects and ideas outside amateur radio have often been a frustrating, must get round to it one day, annoyance. From the age of 12 onwards I have wanted to build Tesla coils, just for the fun of it. This minor satisfaction in life has partly been realised and a great sense of, at long last. However with much more to do on the Tesla coil project and many other interests, amateur radio has to wait in line.

I do enjoy providing input to Amateur Radio magazine, but perhaps on a more diversified range of subjects. One particular interest is the WIA as an organisation. We have a long proud history, of hopefully doing what is best for the Australian amateur, with tremendous time and effort contributed by many people over many years. Just reading through the past minutes of Federal Conventions stretching back decades, you get the sense of lots of people, devoting lots of time, all for free in order to keep the WIA running.

Another interest is our history. The WIA has had many dedicated people in the position of Federal Historian, sorting large amounts of material. However after all these years just what we have is difficult to find out, and just where we are going with our history equally difficult to define. What do you want as a member when it comes to WIA and Australian amateur radio history? I can answer what I want and that is access. Be able to see what we have and even view the actual documents, minutes, motions and physical objects. It has never been possible to do this easily, but now it is, in a way ten years ago we could not imagine. In a word the Internet. All our historical documents and objects can be scanned or digitally photographed and then made available on the Internet. Further to that out audio history can be digitally recorded and stored on the Internet for all to hear. The WIA started an audio history project a few years ago and I'm endeavoring to find out where it is at.

With the Federal WIA convention coming up in the next few weeks, much of my time has been spent on preparing motions and reading other material for the convention. Being a Federal Councilor can take up a fair bit of time, and now that all divisions and Federal Councilors are E-mail connected, a lot of time is spent sending and answering E-mails. Perhaps the E-mails generate more work on their own, due to it being so easy to do business this way, but I think all councilors would agree it is a great way to conduct WIA business.

So in the future you may see a lot more waffle and a great deal less voice repeater material. I would also like to provide more information about just what the WIA is and is not doing for Australian Amateurs. A difficult task because some of the comments could be critical of the WIA, and most important, my perspective, not necessarily as it really is. However, do you want the WIA to be insulated from critical constructive comment? Hands up those who think the WIA is a s good as it could be. There is considerable interest to examine the structure of the WIA, and if it can be made better, move in that direction. If you are interested in any change to the WIA dig up Amateur Radio, April 1976 pages 7 to 12 and read the Arnold report. This extensive report was on just this subject, changing the WIA. There was no outcome from this report, it just died. The reasons for this can partly be traced by reading past WIA Federal Convention minutes, more on this next month as I waffle on.

VHF/UHF AN EXPANDING WORLD

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All times are in UTC

Portable operation 144 MHz and above In the last few years there has been a resurgence in portable operation. This seems to be both Contact related and/or for grid square activation. Going portable is one way you can combine a bit of radio with a bit of adventure, outdoors, perilous mountain climbing, a bit of public interaction even taking along the family. Even my shack mascot Clyde the Jack Russell, enjoys the odd dxpedition! In some cases, where the home QTH is challenged in a desired direction it is the only way to work the rest of the world. The following is a collection of portable reports

Dale VK5AFO reports ... 'I managed to be set up on a small hill close to home with the 12el K1FO and the 160W amp on 2m 3/3/1 from 7:30am local. The stations worked were; VK3AXH 5/1 Ian Ballarat, VK3AFW 4/1 Ron Melbourne, VK3CY 5/4 Des Wedderburn, VK3FIQ 5/2 Geoff Stawell, VK5NJ 4/1 John Mt Gambier He was using 100W to a vertical, VK3AEF 5/9 + Jim Nhill and VK3SWD 5/9 Bill Nhill, Numerous meteor pings whilst beaming to the Nth East on 144.2. Thanks to all who looked my way and made a contact." ...Dale VK5AFO

Ron Vk3AFW reports ..."This morning, 3/3/1, at 2006 hrs I worked Dale, VK5AFO, Mt Barker on 2 m. Distance about 650 km. His sig was 4x1 my rpt from him 5x1. There was a large amount of QSB. At 2015 I copied the Adelaide 2m beacon 519 but it was back in the noise 5 minutes later." .... Ron VK3AFW.

From Guy VK2KU/p ... "Log of Guy VK2KU/p for 1 March 2001 from Blackbutt Reserve, Newcastle. Lat 32deg 56.087min S, Long 151deg 41.357min E, Locator QF57ub, 01 Mar at 0044 on 144.1MHz: VK2ZAB 59,59, 01 Mar at 0047 on 432.1MHz: VK2ZAB 59,55, 01 Mar at 0048 on 1296.1MHz: VK2ZAB 55,53

From Anna Bay, Lat 32deg 47.082min S, Long 152deg 04.500min E, Locator QF67af. 01 Mar at 0249 on 144.1MHz: VK2ZAB 59,59, 01 Mar at 0252 on 432.1MHz: VK2ZAB 59,55, 01 Mar at 0257 on 1296.1MHz: VK2ZAB 55,53, 01 Mar at 0303 on 144.1MHz: VK2EM 57,57. The separate log of John VK2TK/p is very similar! Equipment: 144MHz IC821H and brick (RFC2-417), 100W, Halo (yagi not erected), 432MHz IC821H, 30W, 1x11 element yagi, 1296MHz IC1271E, 8W, 1x22 element yagi.

Comments on the Expedition: This was a lower key operation than our last expedition on the way to Albury last year. It was much nearer home and completed in a single day. John had collected all the gear from both of us a few days earlier, so we met at Hornsby station with Guy coming down from Springwood by train. The primary purpose was to activate 2 new squares (for us) on 1296MHz. We headed north from Hornsby shortly before 9am - a pretty late start for us! Mobile contact with VK2ZAB on 144MHz using the halo was more or less continuous. After coffee and Danish pastry somewhere north of Wyong (no point in roughing it), we reached Blackbutt Reserve around 11am. Lots of wet trees obscured the view south from this elevated spot, so we searched around for a more open spot. The high point was dominated by 2 huge water tanks, and it was impossible to get John's vehicle to anywhere with a clear view. Further down the hill to the south we also failed to find anywhere better, so we returned to the wet trees at the top. By this time it was raining again lightly too, so we did a swift setup without the 2m yagi, using the halo on that band. This obviously limited DX contacts on 2m. We both worked Gordon quickly on the 3 bands, and dismantled everything almost immediately before the equipment (and ourselves) got too wet. Apologies to other stations who may have wanted QF57.

Off to Anna Bay with a quick stop to buy lunch on the way. Anna Bay is a lovely spot with a million-dollar view out over the beach and Stockton Bight towards Sydney. The place was almost deserted except for a couple of 4WD ECO Tour vehicles. The sun was out by now and conditions perfect. We set up discretely at the back of the car park - not really sure why! We were half-ready when this enormous tour bus arrived and parked exactly between Sydney and us. Ah well, we figured it would leave soon. Once set up we called Gordon (through the bus) on the halo - 59 copy, so we moved up in frequency. Somewhat to our surprise 432 was excellent so we moved up to 1296. Gordon didn't seem to be able to hear us, and after a few hectic minutes we found that in packing/unpacking the IC1271E the microphone gain had got set back to zero and the mode set to split-frequency. Once this was corrected copy was excellent both ways. The yagi was about the same height as the roof of the bus, so maybe we got some ground gain from it! We stayed a while and worked Bruce VK2EM, but didn't hear anyone else.

Next trip: probably in late March to do some of QF45, QF47, QF48 and QF58. Research of possible locations is under way, and we hope to stay rather longer this time at each place. Expressions of interest for QSO's welcome." ... Guy VK2KU

John Moyle Field Day reports are scarce. From VK5 observations, virtually no propagation to be had. I managed to work approx. 400km on 144 & 432 MHz to VK5SR/P Mt Edward from Summertown (4km North of Mt Lofty). Also VK3AEF/P3 144/432 and heard only on 1296 MHz from Yanac (about 300km) and VK3III in the Northern Grampians on 144 heard on 432 MHz (about 400km again). Rain at the Mt

Edward end precluded any serious Microwave work. Only highlight was a dud Car battery (new car's don't have these problems .....), thanks to Paul VK5XPH and his trusty 747 Jumbo sized jumper leads!

50 MHz

50 MHz should be in the swing of the equinox as you read this but don't hold me to that! If you are looking towards the Northwest, operators in India have had their permission to use 50.35 - 50.55MHz extended until the end of July 2001. From most reports, 50 MHz hasn't reached the heights of the last cycle.

Scott VK4JSR reports ..."With a major storm occurring last night, 20/3/1, (09:00Z) the A index rocketed to 52 today. The US 50MHz prop logger showed good conditions from most of eastern VK this morning with FK8, TI, XE, ZF, KH6, and AH8 all being worked/ heard from QG62. Mike VK2FLR reported KH6 also this morning. 46.172MHz TV was also reported by VE7SL yesterday, was also interesting to see. A spate of VK3's clambering for JA's has just finished with the occasional JA still being heard now as I type this (11:35Z). Nice to see some F2 returning to the band." ... Scott VK4JSR

10 GHz ATV

VK5EME reports .. "I am now operational on ATV 10GHz. Have so far got through to VK5YLE at 1.5km & VK5SFA at 7km. Signals are P5 & can be variable. Trees obstruct both paths. There also seems to be propagation at night even over the 1.5km path to VK5YLE. When this happens I am able to point the dish anywhere & signals seem to be bouncing off of everything. I am running 1293.75MHz in the shack at 10mW up 10metres of RG6 cable to the multiplier & PA 10350MHz Out. I am using the 40cm dish with penny feed. I originally tried a 20dB horn but found that it was marginal. The PA is running 500mW but can be adjusted by varying the power up the cable. There does not seem to be much difference between 100mW and 1Watt. Lee & Steve are both using a Bob Platts 10GHz LNB & 60cm offset feed dish. In fact the lower power seems better sometimes when the trees are moving causing signal variations. 5GHz is next." ... Mark VK5EME

24 GHz EME!!

From the ARRL ... W5LUA Documents 24-GHz Moonbounce Echoes; QSO Planned NEWINGTON, CT, Mar 7, 2001—Noted VHF-UHF and microwave enthusiast Al Ward, W5LUA, reports that he documented echoes from the moon on 24 GHz earlier today. Although some amateurs have claimed to have heard 24 GHz echoes in the past, it's believed that this marks the first time they have been documented. Ward says he was able to hear and record the earth-moon-earth echoes on 24192.1 MHz at 0816 UTC today. "This triumphant event came after several years of optimizing the system and many failed attempts at achieving lunar echoes," Ward said. Ward, who lives in Allen, Texas (EM13), was running 20W and using a three-meter dish

VE4MA reports further ... "Tonight at about 04:30 UTC March 10 the 24 GHz EME signals of W5LUA were heard at VE4MA. Signals were weak at both ends. Al's signal here was T-M copy. I am using an 8 ft offset (14 /12 GHz) dish with a "large" diameter W2IMU feed into a DB6NT Preamp at 1.55 dB NF. I see 15 dB on Sun noise and 2.3 dB of moon noise. I had no visual moon because of clouds, but this does not appear to have affected the moon noise. The beamwidth of the antenna appeared to be slightly less critical with clouds than with clear sky. The WX here was about -1deg C (warm spell!) and about 80% humidity with snow expected overnight. And now to make a QSO!" ... Barry VE4MA

Microwave Primer Part Eleven:

Using Spread Spectrum WAN's on 2.4 & 5.7 GHz

Now for something a little different .. still Microwaves though! Enormous development has gone into "Consumer" type Wide Area Networks (WAN's) for linking PC's around an office without cable or to link two sites in close proximity. 916 MHz and 2400 MHz ISM bands have been, to date, the preferred bands. This part will pass on a few ideas to help you experiment with some of the 2.4 GHz equipment. Just what you can do, well we are now talking about Wideband data transmissions but 2 MBPS could be a highspeed Packet radio backbone, or a multichannel voice link between sites. 2MBPS is enough to pass B&W TV pictures, if you have access to encoders/decoders ... food for though anyway!

Semiconductor manufacturers have developed complete chipsets to provide 100mW of RF and Wideband receivers that achieve typical 100-metre coverage in a cluttered environment. PCMCIA card "Wireless networking adapters" allows laptops to be linked into a LAN yet be portable within an environment. The 2MBPS data transfer rate, while slow by LAN standards, is a more than acceptable compromise for portable work. Multiple clients can co-exist on one "channel". Some units have the ability to operate over multiple channels.

The more recent "Bluetooth" developments use 2.4 Ghz to provide wireless short range (10 metre) unlicensed radio links as per IEEE 802.xx standards. Typical uses go beyond PC linking to just about anything that would have used a cord to connect to something up to 10 metres away. 2nd Generation Bluetooth will take the technology to 100 metre range. Newer developments for the 5.7 GHz ISM band follow similar deliver 11 MBPS data transfer rate. If you get the picture, the true short range "Wireless" era is only just beginning!

In the next few years a lot of the 1st generation 2.4 Ghz equipment will drop out of service as the band becomes more crowded and/or consumers demand faster data rates. It is indeed a shame that we don't have an allocation around 900 MHz. The ISM band of 916 – 928 MHz would be a start, already given a plug in this column last year. The proliferation of 900 MHz ex AMPS & GSM Network equipment simply being converted into base metals is a crying shame. One rack mounted UK made 900 MHz amplifier I tested this week provided 100 watts easily with about 50 mW's input. 24 VDC requirement a minor nuisance but the devices/design just won't translate to any current amateur band. For a 100 watt 922 MHz FM ATV transmitter though it would be nice! 5.7 GHz equipment will eventually be of more interest albeit newer and perhaps less accessible (read more $$'s).

The last few months I have been playing with a pair of PMCIA 2.4 GHz Spread Spectrum WAN Cards. These are "Webgear Aviator™ 2.4 GHz" but a

number of other companies market them. Brand new they seem to start at around $150 a pair, for a little more you will get a full set plus one PCI card adapter for a Desktop PC. If you have access to a pair of Laptop's then you won't need the adapter. Typically the WAN card uses a pair of small "patch type" antenna so connected to give some path diversity. As they are they seem to work over about 100 metres in built up areas, but I've had these working across the gully here (1km) without any trouble. The temptation to fiddle to get more range was insurmountable! .

Adapting the WAN card to take an external antenna isn't too hard. The hardest part is probably getting inside the card without causing too much damage. It is then just a matter of removing the coax connections to the patch antennae and installing a short length of semi rigid coax to one of the two points. Once you find where to go you can drill small access holes to get a soldering iron in to do the work. The Semi rigid can be soldered inplace on the usual tinplate case. Terminate in a SMA or TNC connector and that is it, 100-mW data transceiver ready to go!

The only problem left is to connect to suitable dish or loop yagi. Being a PC card it is a bit hard to mount the PC at the dish (unless portable) so you will need to run a feedline of some description to your antenna. This is where it will pay to do some path loss calculations to see what will and won't work. For short paths some feedline loss may be acceptable. For longer paths you may need to counter feedline losses with a bit of extra antenna gain. I have had a couple of reports over the last 12 months of success up to 18 – 20 km's with 2 foot dishes (Pure Line of Sight). I am currently working on using a pair for a link to the SA VHF Group Water Tower (only 6km away LOS).

I made mention of 2.4 Ghz commercial equipment becoming available eventually. Some of the earlier equipment is now being updated ... some of the old equipment will no doubt be re-used but some will also fall out of service. This dedicated link equipment is usually only 40 – 100mW's. In order to comply with current regulations the EiRP is meant to be less than 1 Watt. That isn't always the case in practice, enough said! The link gear usually has a number of channels from 2400 to above 2450 MHz. For Amateur use, they would be of good interest. Commercially each end usually costs between $1-2K, hence their popularity as a cheaper form of point to point linking.

Where do you start? I don't think you can go past the WAN cards for a simple and cheap start. If you have an interest in linking amateur stations point to point then this is a far easier method than starting with Gunnplexers on 10 Ghz. 100 mW's is nothing to be sneezed at! Operation of these units into an antenna is perfectly legal as long as they are operated in accordance to our current licensing conditions.

In closing

SERG will be holding their annual convention on the Queens birthday long weekend, June 9th & 10th, 2001. Fox hunts, commercial displays and the usual annual chat for VK3 & VK5. More details next month.

And don't forget the Eastern Zone ARC will be holding the fourth Annual Gippsland Technical Conference in Churchill, Victoria, on the weekend of July 8 & 9, 2001. For further details see the Club web site at http://www.qsl.net/vk3bez/ contact the Club via email to vk3bez@qsl.net or at Eastern Zone Amateur Radio Club Inc., PO Box 459, Moe 3825, Victoria, Australia.

I'll leave you with the following thought "Is a Serial mouse one you get in a Corn Flakes packet?" Till next month

73's David VK5KK AR

Barry VK2BJ wins Peter Alexander VK2PA Award 2000

In memory of Peter Alexander, VK2PA, who was a keen CW operator and known world wide, the Oxley Region Amateur Radio Club of Port Macquarie created a special award to be presented each year to the top VK station in the Commonwealth Contest. The award is a perpetual trophy held by the ORARC and each year the winner is presented with a special plaque. In 1998 the award was presented to VK2BJ, 1999 it was VK4EMM and again in the year 2000, VK2BJ was the recipient. Barry travelled to Port Macquarie especially for the award and entertained the ORARC Club members with his experiences in contesting. The results of the 2001 Commonwealth Contest is not yet known.

It is a pity that so few VKs enter this extremely social contest. Unlike a world wide contest, and like the CQ or ARRL tests when stations make contacts at a rate exceeding 120 an hour, the Commonwealth Contest is much more relaxed and total QSOs for the 24 hour period will seldom exceed 750.

de VK2AYD

Photo : Barry VK2BJ, being presented with the plaque by Ina Alexander.

New Column

Ham Shack Computers

Alan Gibbs, VK6PG
Email: vk6pg@tpg.com.au

Getting Started

When gazing at television, magazines and newspapers these days, it's hard to find something that does not mention the word COMPUTER or the INTERNET! Society is continuously being bombarded with email and web addresses, and it seems "trendy" to carry a mobile phone to check if someone has sent you an email message when you are standing waiting for the traffic lights to change green!

For Radio Amateurs worldwide, the computer has certainly made its mark by changing the way they operate in the ham shack. Even the Amateur Radio magazines have "data" columns and features that use microprocessors and computers to do just about everything. But many Radio Amateurs are perplexed when they read that "this" and "that" could be downloaded from the "Net" and used to perform some magic function, or offer some enhanced productivity that automatically does "something" for "someone" with a computer.

This new series of articles points to a vast arena of topics, hints, tips, software and hardware. The very nature cannot fully address the needs of all readers, but it can help those who do not yet have a computer, or who might be thinking about getting a computer and want to understand some of the "jargon". In simple terms, you might just want to make a start without finding computers so daunting after all.

As for the expert readers, their support and help is also needed. It's easy to assume that everyone understands how computers work, and how they store information. However, many Radio Amateurs do not use computers, or feel that computers are much too complicated and avoid reading Computer and Data columns in the AR press.

This series is for everyone, the 'thinking of getting" and the "experts" alike. The writer cannot hope to keep everyone happy all of the time but let's work together and show just how computers can help us enjoy the wonderful hobby of Amateur Radio. After all, in the field of computer technology, there are very few real "experts" – just good people who know a little more than others but perhaps in a different field of computer technology.

Getting started with a new series like this is a daunting challenge. However, readers' suggestions are welcome. Your experiences will assist those in need and help to spread the message that Amateur Radio is still growing, healthy and a "High Tech" hobby just like other technologies in a modern world.

In days gone by, AR was considered a way towards a professional career in communications. Today things have changed, so perhaps readers might consider that – with an understanding of computers, and the way they operate, might just be an avenue towards getting into Amateur Radio. So, welcome to this new series. It will be different to articles written in popular computer magazines, and related to the hobby that we all enjoy – otherwise you would not be reading this magazine!

Ham Radio Computers

In this new millenium, computers are assisting Radio Amateurs to:

- Keep station logbooks.
- Track duplicate contacts and QSL cards going in and out for awards.
- Fully run HF/VHF transceivers.
- Plot the trajectory of satellites.
- Automatically collect messages.
- Test propagation paths.
- Design antenna systems.
- Draw circuit diagrams and design printed circuit boards.
- Automatically turn a beam antenna in the right direction when a prefix is entered into a logbook.
- Keyboard chat to one or many operators around the world ...
- and design custom QSL cards.

The list is almost endless but few operators will do, or even want to do

everything that's on offer with computers in the ham shack.

The writer's shack has three computers each playing a key role in how the hobby is enhanced and enjoyed. These are:

1. Automated packet messaging, DX cluster, and "wormhole chatting" on 2m FM.
2. Operates the station HF transceiver, keeps the logbook(s), runs RTTY, CW and PSK31 and maintains records to track awards and QSL's.
3. A "working" computer for writing these articles, Internet (Web and Email), picture scanning and image processing. Running conferencing with other operators via international repeaters around the world etc.

All three computers are interconnected via an "Intranet network" so that information can be shared and used simultaneously. Why would the writer need three computers in one shack? For the answer, keep reading this series.

Seeking Advice

Gather together a small group of Amateur Radio Operators at your next club meeting and ask them: "What type of computer would be best to use in the average Ham Shack"? If there was a group of say 12 members, then you'll get 12 different answers! That's after some lengthy period of argument, humor and much interplay amongst the group.

Some operators can afford to buy one of those modern, superfast "all singing and dancing" multi-media, whiz-bang computers complete with a colour television camera and compact Digital Video Disk with surround sound stereo speakers. Very nice but not really what is wanted in the Ham Shack. Others might be strapped for money and unable to even consider buying a computer because of large mortgage payments, the kids - and the family must come first.

For readers with a serious cash flow problem, there are many solutions to getting started. In a recent contact with one RA in Australia, he said that a visit to his local rubbish tip produced the parts to a fully working IBM™ compatible 486DX-2/50 computer and monitor! The new acquisition needed some cleaning up and a few screws to secure internal cards. A trip to a local Big-W store produced a nice new keyboard and a friend donated a mouse and power cord. The outcome was a fully working colour computer that handles the station logging, keeps his records of QSL's and awards, runs packet messaging on 2m, keeps track of correspondence, and other family duties including games!

Finding Computers

Sources of good quality second hand computers include car boot and garage sales, club junk sales, the WIA weekly broadcast disposals segment, local auctions and friends. The writer's local "computer recyclers" have modest computer packages for around $50 complete with monitor, keyboard and a mouse. Not bad if you are prepared to do some cleaning up and don't mind the odd scratch on the case and/or monitor.

Superfast computers are nice to own but not really needed in the ham shack. However, if you would like to process images and sounds, or handle complex files and functions at speed, then perhaps you will need the computing power to handle the job. Remember that other additions may be needed like a printer, scanner, high-density file back up system etc. But most RA's might not even need these devices if some thought is given beforehand. Most AR software is available for free, the start-up costs can be kept very small indeed.

Readers who feel that computers are far too complicated and should be avoided at all costs – please think again and accept the challenge. It's really quite easy to do.

If correctly setup, computers can do all those wonderful jobs mentioned earlier. If you studied hard to gain you're Amateur Radio Licence (and passed the Morse test as well), then you'll find it a breeze to add computing to your personal skills.

Talk to friends and other AR operators who use computers. Read the data columns and packet news articles. Ask how a DX cluster works or watch a PSK31 contact at your friend's shack. Visit your local club and listen to talks about using computers in every day AR applications. You'll be amazed how advanced and exciting the hobby has become over the last few years.

Which Type to Choose?

There are so many options these days it's better to start with what you would like your new (or secondhand) computer to actually do for you. Most operators start with a simple system to do word-processing and shack log-keeping duties, then work upwards driven by personal interest. Do a little planning and write down your options and desires – then see what is around the market place.

If you want to start with PSK31, then a multi-media computer with CD-ROM and stereo sound, a reasonable sized hard drive – including the cost of Microsoft Windows™ might be too expensive if you are a newcomer.

Conversely, a cheaper basic machine might be the better option, and use this machine to learn more about computers and the myriad of options available.

For simple packet, logging and general family duties, an Intel based 486DX-2 50MHz computer will do just fine. These machines are flooding the secondhand marketplace and available for less than $100 including colour monitor, mouse and all the cables and software.

Most operators are very resourceful and prepared to build their own machines, and it's very easy to do. A case, motherboard, some memory chips, disk controller card, sound card, a floppy drive and a hard drive can easily be assembled and commissioned in one evening in the shack. Avoid older "XT", "286" and perhaps early "386SX" types of computers. Use the advice gathered from your friends and club mates, and if buying secondhand, take your friend with you and ask for a demonstration before making your final purchase.

The Ultimate Goal

Like the picture shown above, the finished computer might take center stage in your custom-built shack desk where the computer does all the work for you. The new Kenwood TS2000B, due soon, has no front panel – everything is done on the computer screen!

Next month: Hardware. Looks at computer hardware with tips on building your own computer. Readers' contributions to this series are most welcome by contacting the writer shown at the heading.

Ham Tip No. 1. Plain water with a little sugar soap added on a dampened Chux Superwipe™ cleans monitors, cases, keyboards, mouses and shack rigs, beautifully. Gently finish metal painted cases with car polish, then buff gently.

73's de Alan, VK6PG

GippsTech – Australia's premier technical symposium for VHF, UHF and microwaves

Chris Morley VK3KME
Secretary WIA EZ ARC
Photographs by Ralph Edgar VK3WRE
PO Box 459 Moe Vic 3825
morley@vic.australis.com.au

Approximately fifty VHF, UHF and microwave enthusiasts (and many XYLs) congregated last July at Monash University in Churchill, Gippsland (approx. 150 km East of Melbourne) to take part in two days of technical presentations, discussion and social activities. GippsTech 2000, which had amateurs in attendance from VK1, 2, 3, 4, 5, 6 & 7, was the third successive symposium; the event has been organised by the WIA Eastern Zone Amateur Radio Club each July since 1998, and *yes*, it will be on again this year. See later in the article for details.

The concept of GippsTech was first put forward by Peter Freeman VK3KAI some years ago when our Club Committee was discussing the merits of another Convention. It was felt that there was a need for bringing together the collective knowledge and experiences of those who dabbled in the bands above HF. After all, this was the area of amateur radio where there was indeed still much experimentation taking place and the boundaries were still being pushed out further. This is not to say that HF is dead – far from it in fact. The aim was to invite some amateurs to speak on a variety of interesting topics and combine this with plenty of time for informal technical discussion, demonstrations and socialising. A key feature of GippsTech has been the involvement of many partners. Pauline, XYL of Tom VK3XBG has most capably organised the other XYLs for local Gippsland tours. The success of these activities is measured by the insistence of several of the XYLs that they are going to be attending the next year's symposium!

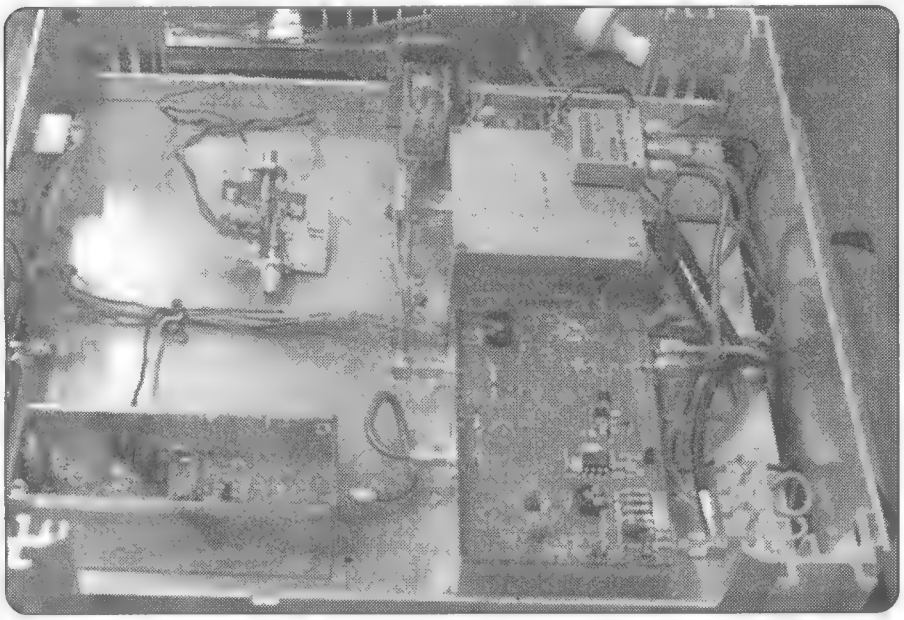
Topics have been wide and varied and have catered for both the practical experimenters and the theorists. Last year, Rex Moncur VK7MO opened the presentations with a very lively talk on *Aircraft Enhancement – Some Insights from Bistatic Radar Theory*. Rex's address was the culmination of months of research, experimentation and email group discussion on what has been a somewhat contentious topic over a number of years.

An excellent presentation on *24 GHz Equipment and Experiences* was given by Colin Hutchesson VK5DK, Trevor Niven VK5NC and Russell Lemke VK3ZQB. The exquisite manufacture and fine detail of their gear had to be seen to be believed. Ron Cook VK3AFW presented a series of 15 minute talks on general interest items for the shack (and home): *A Simple TVI Fix, An Improved Microwatt Power Meter, and Sequencing the AM17*. Jack Bramham VK3WWW explained how the internet can be used to alert us to current propagation conditions with a talk on *The DX Cluster*.

One of the most entertaining talks was that given by Wally Howse VK6KZ. He kept us all interested and asking questions with *VK6KZ Portable: Hints for VHF/UHF Portable Operation*. The clear message here was to test before you leave home and configure your equipment so that it's virtually ready to go as soon as you park your vehicle.

Both Rex VK7MO and yours truly, VK3KME each presented their experiences with DSP software. Rex offered *Some initial observations on using Spectran/Sprectrogram/Hamview and Visual Frequency Shift Keyed CW on 144 MHz* where he described the relative merits of each software program and the advantages that DSP software provides for weak signal detection. VK3KME's talk also covered weak signal detection, but focussed on using DSP software to track aircraft. Other talks included Ralph Edgar VK3WRE on *Useful Circuit Ideas For Microwave Equipment Integration*, and Peter Freeman VK3KAI on *2.4 GHz Equipment and Experiences, and Lightweight Antennas*.

Other notable talks in past years have included *The New Zealand VHF/UHF*

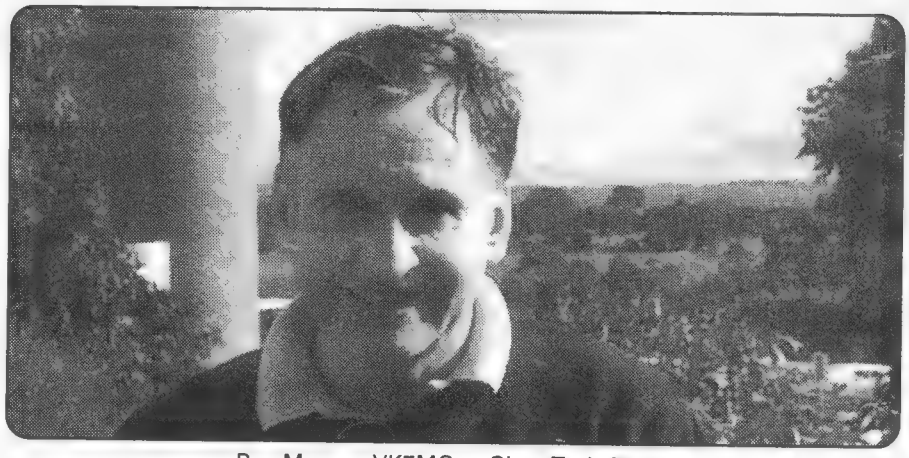


Some of the 2.4 GHz equipment on display at GippsTech 2000

Scene by Peter Loveridge ZL1UKG, *Predicting Tropospheric Propagation Across the Great Australian Bight* by Russel Lemke VK3ZQB, *Comet Shoemaker-Levy* and *EME Communications*, both by Doug McArthur VK3UM.

To read much more about these interesting talks, the proceedings are still available, at a nominal price, for GippsTech98 and GippsTech99. Please contact me via one of the means listed above to arrange your copy. Proceedings from GippsTech2000 will be published soon.

GippsTech2001 is being held on 7-8 July and promises to be another successful meeting of those amateurs who are interested in the top half of the spectrum. We are still looking for speakers for this year's event so if you would like to present a topic, please email either Peter Freeman (peter.freeman@sci.monash.edu.au) or contact myself (details above) with details of your proposal. More details of this year's event will be published over the coming months.



Rex Moncur VK7MO at GippsTech 2000

Some of the crowd in the lecture theatre at GippsTech 2000

Pounding Brass

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(H) 02 9876 8264 (M) 0419 602 520

Technology has finally caught up with me and I am now possess an email address, see above, this will make correspondence faster. If you are not connected please keep the letters coming and I'll get to you as quickly as possible.

Trevor VK3PP sent me an interesting letter recently in regards to Maritime Traffic and Coast Stations still operating, here is an extract from Trevor's letter.

...Here are a few call-signs of Maritime Mobile CW Coast Stations still operating, or that I have logged in the last 2 months or so. Mostly it is a call type inviting ships to send traffic, or sending call-signs of ships that the Coast Station has traffic for. Very occasionally I actually hear Coast Stations working a ship. Some Coast Stations still send weather in English.

Here are some of the stations logged, which might interest readers of your column.

011055Z Jan 01 8694KHZ XSZ (Dairen, China)

Commences with "hr wx on 463 6333-5 and 8694KHZ".

Weather forecast and gale warnings followed.

031045Z Dec 008573KHZ CLA21 (Habana, Cuba)

"CQ de CLA QSX C/11 8638/12552 TX 8573/123673.5 QSW CLA 20 32

QRJ C/809 K"

230156 Nov 00 17103.2KHZ XSG (Shanghai, China)

CQ followed by "pls up 648"

The following call-signs frequently heard and now silent are:-

GKL Portishead. UK
LGW Rogoland. Norway
PKX Jarkata. Indonesia
URL/UFN Russia

Thank you Trevor for your interesting letter, you might be interested to know that "LGW" shut down on 1st December 2000 at 000Z, Rogaland made its final CW broadcast on.

4 MHZ (LGW) 8 MHZ (LGB) 12 MHZ (LGJ)

The transmission reads as follows:

CQ de LGW LGB LGJ = QTC1 =

The time has come to take a last farewell with CW here at LGB. With a little bit of nostalgia we bury our morse keys and may they R.I.P.

NW QRU TU BI BI de LGB CL CL AR VA VA VA de LGB.

If anybody has any information on the above let me know and I'll pass it onto Trevor VK3PP

A technical look at sounder will continue on next month, meantime I'll be burning the midnight candle looking at Telegraph Sites on the Internet and will report my findings in later issues.

Until then 73. See you on the air

Steve VK2SPS

HF Predictions

by Evan Jarman VK3ANI
34 Alandale Court Blackburn Vic 3130

These graphs show the predicted diurnal variation of key frequencies for the nominated circuits.

These frequencies as identified in the legend are:-

- Upper Decile (F-layer)
- F-layer Maximum Usable Frequency
- E-layer Maximum Usable Frequency
- Optimum Working Frequency (F-layer)
- Absorption Limiting Frequency (D region)

Shown hourly are the highest frequency amateur bands in ranges between these key frequencies, when usable. The path, propagation mode and Australian terminal bearing are also given for each circuit.

These predictions were made with the Ionospheric Prediction Service program: ASAPS Version 4

April 2001
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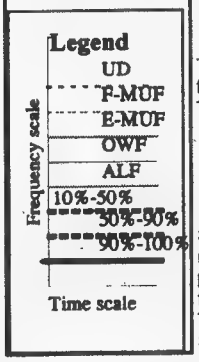
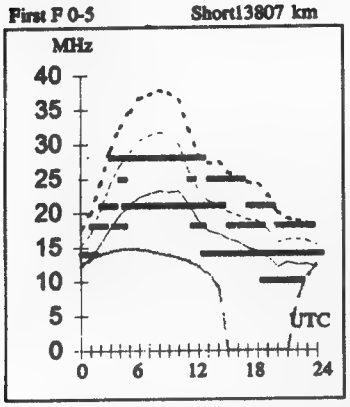
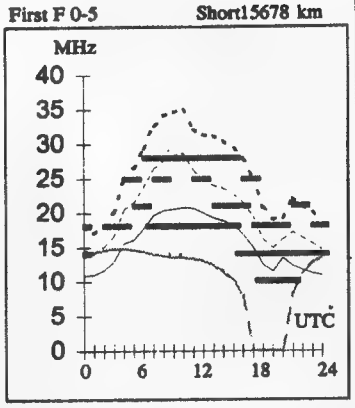


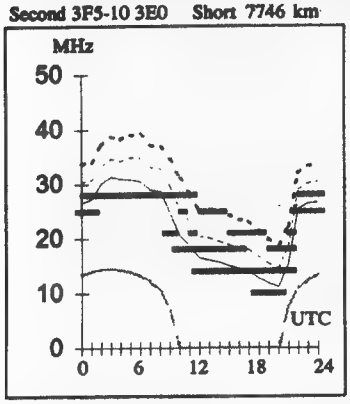
Adelaide-Moscow 318
First F 0-5 Short13807 km



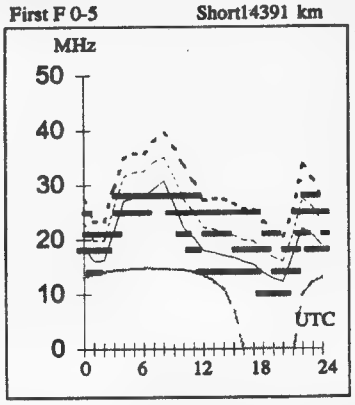
Brisbane-Berlin 321
First F 0-5 Short15678 km



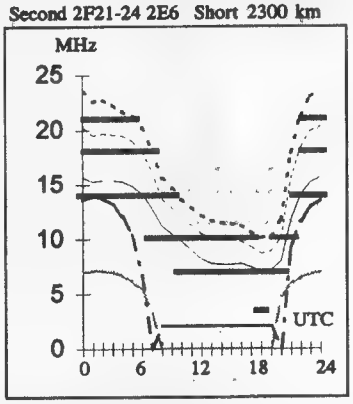
Adelaide-Osaka 357
Second 3F5-10 3E0 Short 7746 km



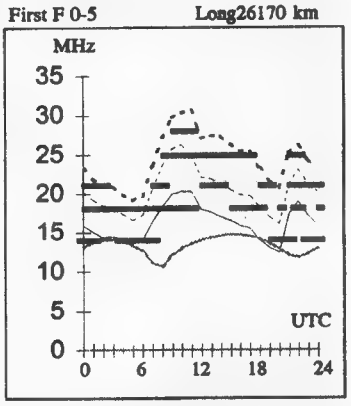
Brisbane-Cairo 288
First F 0-5 Short14391 km



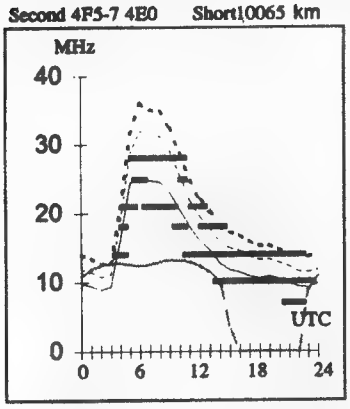
Canberra-Auckland 102
Second 2F21-24 2E6 Short 2300 km



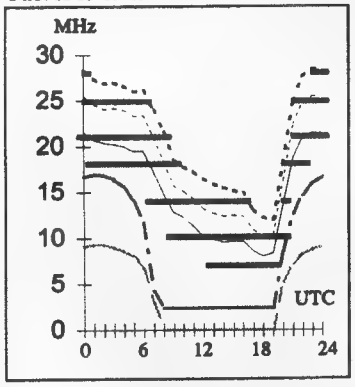
Darwin-London 145
First F 0-5 Long26170 km



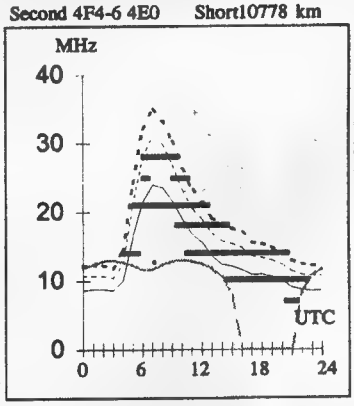
Adelaide-Pretoria 238
Second 4F5-7 4E0 Short10065 km



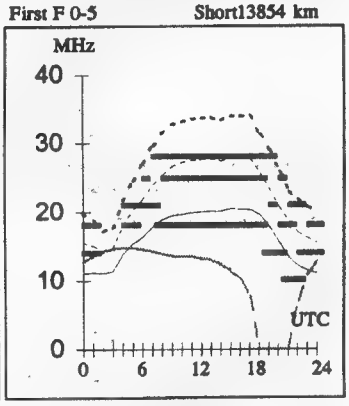
Brisbane-Noumea 70
First 1F15-19 1E0 Short 1471 km



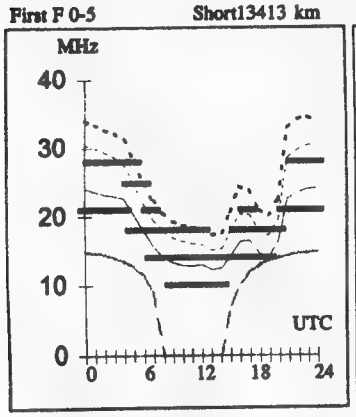
Canberra-Capetown 219
Second 4F4-6 4E0 Short10778 km



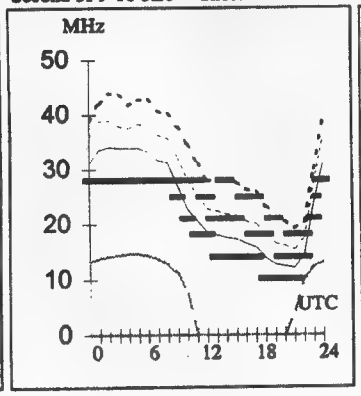
Darwin-London 325
First F 0-5 Short13854 km



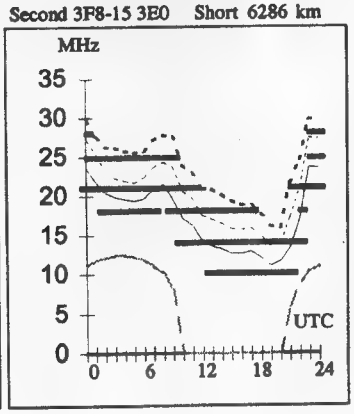
Adelaide-Seattle 51
First F 0-5 Short13413 km



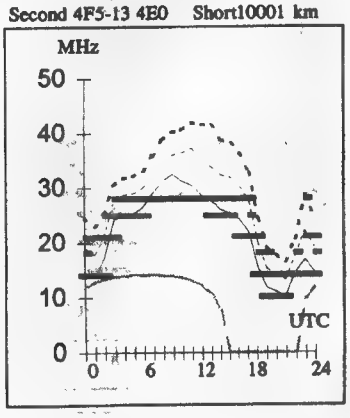
Brisbane-Singapore 293
Second 3F9-16 3E0 Short 6147 km



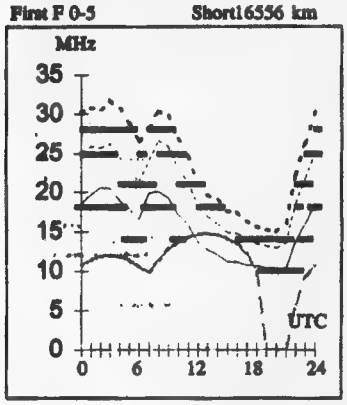
Canberra-Manila 327
Second 3F8-15 3E0 Short 6286 km



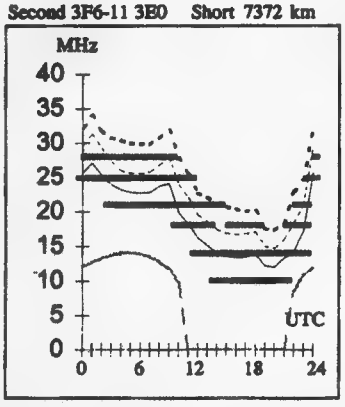
Darwin-Riyadh 295
Second 4F5-13 4E0 Short10001 km



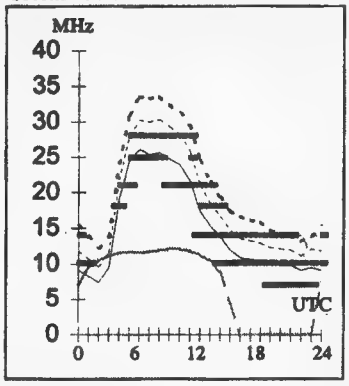
Hobart-Dakar 209
First F 0-5 Short16556 km



Melbourne-Bangkok 312
Second 3F6-11 3E0 Short 7372 km



Perth-Harare 257
Second 4F8-11 4E0 Short 8496 km



Sydney-Miami 86
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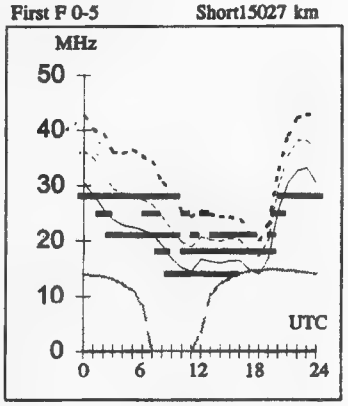
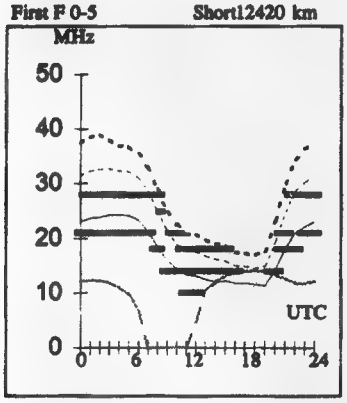
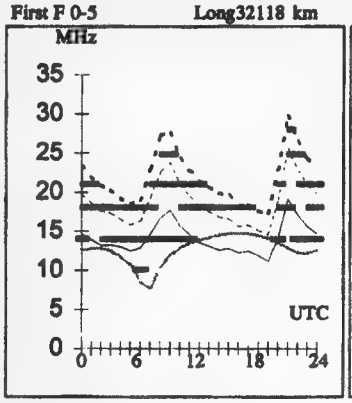


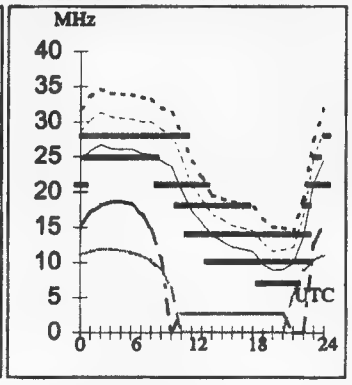
Hobart-Lima 133
First F 0-5 Short12420 km



Melbourne-London 131
First F 0-5 Long32118 km



Perth-Port Moresby 59
First 2F9-12 2E0 Short 4073 km



Sydney-New Delhi 302
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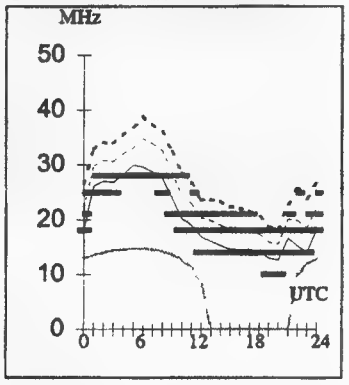
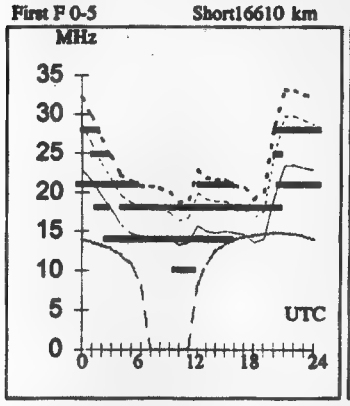


Hobart-New York 80
First F 0-5 Short16610 km



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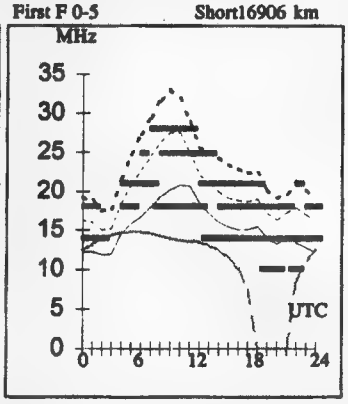
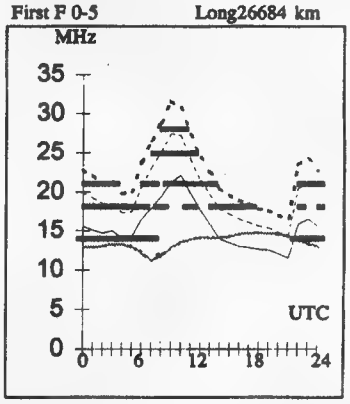
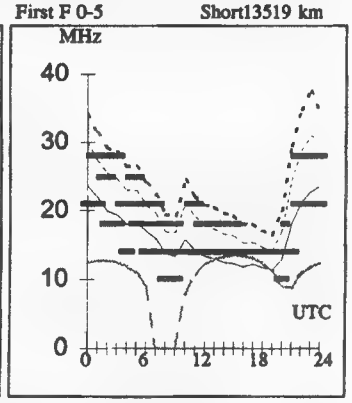


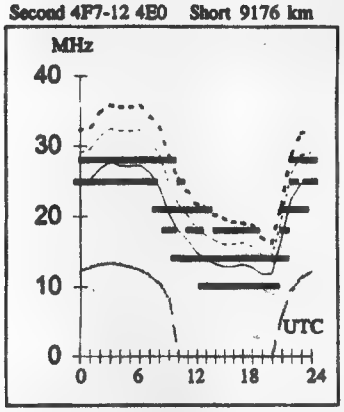
Perth-Rome 123
First F 0-5 Long26684 km



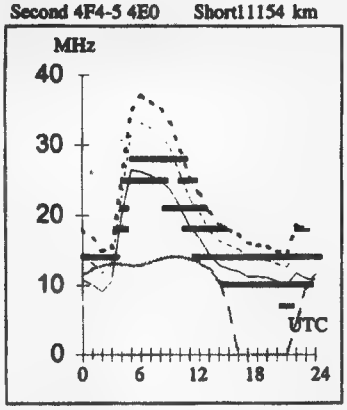
Sydney-Rio de Janeir 164
First F 0-5 Short13519 km



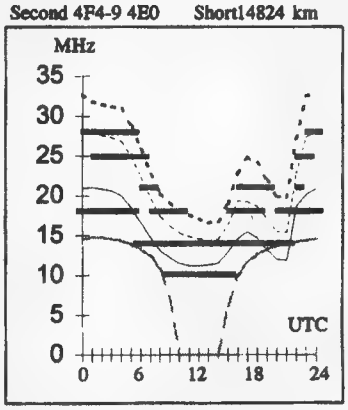
Hobart-Seoul 344
Second 4F7-12 4E0 Short 9176 km



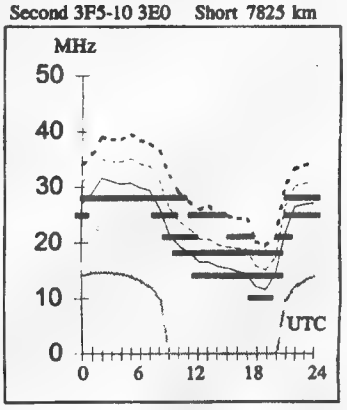
Melbourne-Lusaka 241
Second 4F4-5 4E0 Short11154 km



Perth-Vancouver 50
Second 4F4-9 4E0 Short14824 km



Sydney-Tokyo 350
Second 3F5-10 3E0 Short 7825 km



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- Hamads may be submitted by email or on the form on the reverse of your current Amateur Radio address flysheet. Please print carefully, especially where case or numerals are critical.
- Please submit separate forms for For Sale and Wanted items, and be sure to include your name, address and telephone number (including STD code) if you do not use the flysheet.
- Eight lines (forty words) per issue free to all WIA members, ninth and tenth lines for name and address. Commercial rates apply for non-members.
- Deceased estates Hamads will be published in full, even if the ad is not fully radio equipment.
- WIA policy recommends that the serial number of all equipment for sale should be included.
- QTHR means the address is correct in the current WIA Call Book.
- Ordinary Hamads from members who are deemed to be in general electronics retail and wholesale distributive trades should be certified as referring only to private articles not being re-sold for merchandising purposes.
- Commercial advertising (Trade Hamads) are pre-payable at $25.00 for four lines (twenty words), plus $2.25 per line (or part thereof), with a minimum charge of $25.00. Cheques are to be made out to: WIA Hamads.
- Copy should be typed or in block letters, and be received by the deadlines shown on page 1 of each issue of Amateur Radio, at:

Email: *newsl@webtime.com.au* **Fax:** *03 9756 7031*
Postal: *Newsletters Unlimited, PO Box 431, Monbulk Vic 3793*

Please send your Hamad by ONE method only (email preferred)

FOR SALE - NSW

• ARs, 50 years $125 and National Geographic, 21 years $150. Jim VK2PM 02 9958 4817

• YAESU FT-101E $350. YAESU FT-920 $2200. Alinco DR-135, 2 metre $600. Jaytech power supply $300. GAP Challenger Aerial. Still in box, $600. All in excellent condition. I will consider all reasonable offers. Glenn 02 4965 7727

• Kenwood TS520S Xcvr s/n840558 with DG-5 digital frequency display. s/n660382 and turner +3B desk mic. Wired to suit. Together with manuals, schematics and all cabling E.C. Bargain. Will not separate. $550. John VK2SWR QTHR 02 6556 7161 johnvand@turboweb.net.au

• Free to a good home: one Telonic SM2000 sweep generator/signal generator circa 1967 with 0.5 - 450MHz, 0.2-12 MHz, 0-25kHz plugins. Working order, with handbooks, but the wife objects to unused large electronic objects! Contact Bill Holliday, 02 9569 4956 (H) (Leichhardt) wmh@eng.uts.edu.au

WANTED NSW

• Collins 32S-3 transmitter and/or matching accessories. Phone Glen VK2FC 02 4982 6570

FOR SALE VIC

• Valves, large collection. Southern Peninsula Amateur Radio Club. Telephone: 03 5985 2671

• Hallicrafters SX28 receiver 0.5-42 MHz. Trio 9R-59DS receiver, both hamband bandspread handbooks. No. 22 set transceiver 2-8 MHz handbook. BC433 receiver 100 kHz-1.4 MHz. BC733 receiver 108-110 MHz. Both with circuits. All best offer. Peter Cosway 03 9379 3626

• Yaesu 70 cm Mobile radio transceiver FT712 RH 1/35 watts with manual and circuitry serial No 21570162 $175. Lindsay VK3IQ Ph 03 5672 2563 Email vk3iq@telstra.email.com.au

• Yaesu FT-8000R. Dual- Band FM Mobile Transceiver. 2m/70cm. 50W/35W. Cross-Band Repeater capability built in. 108 Memory Channels. Rx coverage 110-550MHz. Cellular Phone frequencies blocked out. Perfect condition with Operating Instructions and original packaging. $699. VK3CJA John: 03 5866 2551 (All hrs). Email: vk3cja@cnl.com.au

• Ameritron AL- 811 HF Amplifier. Coverage 160m – 10m. 600W output. Svetlana valves. This unit which has been replaced by a PC and has had little use. It comes with Operating Instructions, original packaging, and is in as new condition. I am keen to sell and will not refuse a reasonable offer. So please phone or Email your offer to VK3CJA John. Tel: 03 5866 2551 Email: vk3cja@cnl.com.au

• Kenwood TS-830S including MC-50 base mike and service manual $400 Kenwood VFO-230 ext VFO $200 Damien VK3RX 03 5427 3121

• Shack Sale & Workshop Clearance • 1x Yaesu FT-480R 2m All Mode Mobile $ 500 • 1x Icom IC-271H 2m High Power All Mode Base $ 900 • 1x Icom IC-471H 70cm High Power All Mode Base $ 1000 • 1x Icom IC-22S 2m Mobile - Broken - Parts Only $50 • 1x Philips FM-93 70cm UHF Mobile - $100 • 19x Motorola Maxar 80 VHF Mobiles $30 Each • 2x Commercial UHF Repeaters Philips PRF15 (430 - 500 MHz) $ 1600/ Pair • 1x Commercial VHF Repeater - needs minor repairs $250 • 1x Tektronix WFM-1480 Video Waveform Monitor - VGC $400 • 1x Tektronix 465 Oscilloscope VGC $ 800 • 1x Bosch HQ Composite Video Decoder to RGB/ YUV $ 500 • 3x Compaq Deskpro-4100 486DX4/ 100 PCs With 16 Mb Ram $100 Each • (No Keyboards, mice or monitors) • 2x Dataproducts LZR-895 Lazer Printers $200 each • 1x APC Smart-ups 400 Power Supply - $150 • 2x Kantronics KPC-1296 9600/1200 TNCs with KNET Firmware $300 Each • 1x 300 watt Stereo Audio Power Amplifier - Rack Mount VGC $250. All offers considered! Paul VK3KHZ (Ex VK3VRD/VK3YWD) QTHR Phone 0412 302 939

WANTED VIC

• Power supplies for Wireless set No. 11 any condition also varometer for No 19 set RF amplifier. A good clear copy of the circuit for the English MK3 No. 19 set would also be appreciated. Clem Jarvis VK3CYD ph (03) 5126 2064, wildwombat@telstra.easymail.com.au

FOR SALE SA

• Sell Yaesu FT 747 Xcvrs S/N 9M250532 $ 700, FT 757 S/N IL590094 $725 both good condx. Philips FM 900 Remote head, $120. R.M.Gebhardt VK5RI, Tel. 08 8893 4001, Email mokota@rbe.net.au

• Deceased Estate of the late Mr Eric Hauber VK5EZ. (1) Rease SWR & power meter, model FSI-5. (2) Yaesu 2m FM transceiver FT-23 (palmate). (3) (Home built) battery charger for the above. Asking price, $200 ONO for the lot. Call Mr L Hauber on 08 9374 3138 or 0413 604 467

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• Collins/Rockwell KWM 380 transceiver in perfect order. Offers. Collins airborne 548LAA linear amplifier with homebrew 3 phase power supply. Perfect KW rig. $500. VK6IK 08 9691 9128 Box 515 Kalamunda 6076

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WANTED TAS

• Circuit diagram for HP 202H AM-FM sig gen; all costs covered. Bob,VK7ZRF Ph/Fax 03 6376 3477 Email grant_rf@telstra.easymail.com.au.

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MISCELLANEOUS

- The WIA QSL Collection (now Federal) requires QSLs. All types welcome, especially rare DX pictorial cards, special issue. Please contact the Hon Curator, Ken Matchett VK3TL, 4 Sunrise Hill Road, Montrose Vic 3765, tel. (03) 9728 5350

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Answers to WIA Quiz (page 20)

1. C - The contests are the John Moyle Field Day, the Ross Hull VHF/UHF Contest and the Harry Angel Memorial Sprint.
2. B – Though it was largely unreported, the WIA actually turned 90 in March this year. Let's hope there is more widespread recognition of our centenary in 2010.
3. A - Tony Shaw. Alan Jordan often deals with the WIA on amateur issues, but is not CEO. Christine Goode managed the old Spectrum Management Agency and Michael Owen has been active in WIA affairs for many years.
4. D – Using AM in any of the frequency ranges given would be very silly and contravene amateur band plans, but only on a section of six metres (in some states) is it prohibited.
5. B - VK6WIA NewsWest from the VK6 Division. The bulletin is relayed by Don VK6DY.
6. D – Melbourne. If you picked C, you were probably confusing it with the IARU Region 3 meeting in Darwin.
7. B – Jack VK3WWW. However both VK4BRG and VK4DO have been active in promoting ARDF. VK6UU writes the *Repeater Link* column.
8. D is correct. Long-time readers will also remember Eric as 'the Voice in the Hills', when he resided in Forreston.
9. A – The 'Apple Isle' has successfully built on previous years' activity to maintain its winning streak in 1999.
10. A – Victoria. Moorabbin is a southern suburb of Melbourne.
11. D – Streamline Press. If you doubt this, turn to Page 1!
12. B – June is correct. If you picked D, you were probably confusing it with the John Moyle, which is held each March.
13. A – Study Hamads more carefully in future if you got this one wrong.
14. D – Like Europe, South Africa is in Region 1.
15. C – Amateur Radio Publications Committee. The Award is awarded for service to amateur radio generally, not necessarily to the magazine. It honours long-time AR publisher Ron Higginbotham VK3RN.
16. A – See Page 2. Most of the others mentioned are current or former employees of the Federal organisation or the larger Divisions.
17. C is correct. B was proposed before the 2000 Federal Convention, but lacked the required support. A is wrong – Federal Executive implements policy as set by Federal Council. D is also incorrect – Divisions are autonomous, self-governing bodies which exist under their own rules of incorporation.
18. D – Yes, they're all volunteers. Knockers please note!
19. B – Have another look at your membership certificate – you'll find it's from a state/territory division. As for D, the age of many members may make it appear so, but it's not the answer we were looking for.
20. A – The WIA can even claim to be a founding member. B and C are wrong – though the WIA maintains ties with these organsiations, it is not a member of them. If you ticked D, you were conned – that organisation was invented only to confuse the reader!
21. C – 25 years. However, you do not need to have been continuously licensed over this entire period to be eligible for membership.
22. B – None of these frequencies are designated as calling frequencies in the Australian Band Plans. All the frequencies in A, B and D are. See your Callbook for full details of band plans and calling frequencies.
23. D - All of the above. And you thought that all you got was a magazine?
24. A – Getting this right proves that you read the inside-front cover of this magazine each month!
25. C is correct. Listener numbers seldom appear in *Amateur Radio* magazine these days, but you'll find them listed in the WIA Yearbook.
26. A. A trick question. The only members of the Federal Body are the seven state/territory Divisions. However if you ticked B, you correctly guessed the combined membership of all WIA Divisions in Australia. D is close to the total number of amateur licensees in Australia.
27. B is correct. Some of the others would be desirable, but have not been achieved at the time this quiz was set. Stronger support from existing and new members will increase the chance of extensions in amateur operating privileges and the removal of outdated restrictions.
28. D is the answer we were looking for – see page 12 of the 2000 Yearbook.
29. D – Bill Rice served as Editor for 15 years and 7 months, retiring in December 1999. Tom Hogan was next longest, serving from 1941 to 1956.
30. A is correct. Have you visited lately?

Assessment

Score 1 point per correct answer.

30 points: PASS. You are either an exceptionally diligent student of WIA affairs or a cheat! If the former, consider nominating for Historian at the next Divisional or Federal AGM.

21 – 29 points: PASS. You are an informed WIA member who keeps abreast of developments. You can speak with authority about the WIA at club meetings and other gatherings and are a great asset to the organisation. There should be many more like you.

11 – 20 points: FAIL. Much room for improvement. You are only moderately informed about the activities of your own organisation. Purchasing a WIA Callbook 2001, reading *Amateur Radio* each month, and listening to your weekly Divisional news transmission are good ways to increase your knowledge.

0 – 10 points: FAIL. Unless you've only recently become interested in amateur radio, a mark in this range demonstrates that you have been less than assiduous in keeping up with WIA happenings. See the previous paragraph for ideas on becoming a more informed member.

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Over To You

Note 1 Views expressed in letters are those of the authors and do not necessarly represent the policy of the WIA.
2. Some of the letters may be shortened to allow more letters to be published

The Wireless Institute of Australia into the 21st Century - Report No1 March 2001

Over 200 responses to the original paper have now been received. A summary report is contained on the website at www.amateurradio.org.au. where there is a copy of the original report.

All respondents agreed that a national body that is owned by the members, who then elect their own officers, would be better than the current state based WIA. Interestingly, very few thought it was possible to make that change against the power of "vested interests".

It was a surprise to find how many people have been working for the WIA, tried to make changes, got frustrated and left. I knew the WIA wasted human talent I had not realised the scale of it until now.

My proposed structure made special provision for representation from country members. Correspondence has emphasised how disenfranchised the country members feel. Not only distant country members but also those living on the city fringe. Country members feel that attendees at general meetings, usually city based, have been given much too much voice in the affairs of the WIA.

Much debate has been generated around what ways to structure the WIA below the national body. There are advocates for all possible alternatives.

- Continue to use states as a representative area
- Divide the nation into regions which can be represented. This is the way that ARRL(USA) and RSGB(Britain) do it.
- Use the affiliated radio clubs as regional bases
- Ignore regions or geographical boundaries and divide up by amateur radio interest. E.g HF or VHF or digital.

I like some combination of the last two. The major interest and focus should be national and on Amateur Radio. We can ensure a national coordination for local issues like planning regulations.

Member communications are also an area that has received a lot of comment from both members and non-members. In Australia it will always be true that a national body will appear to be remote from some distant parts of the country costs of travel preclude face to face meetings. As some correspondents have pointed out; what is really required is that members believe that the organisation is listening and interested in what ALL members have to say.

For the future this is an area that should receive a lot of attention. The State based divisions have clearly failed in this area which was the principle reason for their existence.

I am seeking more good ideas on this area of debate.

What next?

I am getting together a small group of people who can put together some future plans to make the national body a reality. The steps are:

- Establish a set of principals and goals for the new organisation. (I hope there will be some of this done before the WIA Federal Council meeting at the end of April)
- Establish the design of at least one organisational structure that will satisfy the need.
- Look at ways that the present WIA structure can be moved into the desired structure.

I have been very heartened by the response so far. I believe that the WIA will now seek to reform itself. I am happy to do all that I can to facilitate that happening I encourage all Amateur Radio Operators to give their support to a new National WIA.

Thanks to all Amateurs for their support. Please keep sending me your ideas.

Martin Luther VK5GN

Future Directions for the WIA

I am writing after reading the interesting paper produced by Mr Martin Luther on this subject. My concern is not only that I disagree with Mr Luther but also that his views will lead to wasting time and keeping our eyes off the real issues. A copy of my letter to Martin is enclosed.

I believe the organisational culture errors facing the WIA are ;

1. Distraction - a failure to keep the organisational eye on the business of the Organisation. Thoughts such as being promoted by Mr Luther are an example of the distraction that keeps WIA from getting on with its core business.
2. Forgetfulness - a failure it keep in the front of our minds the lessons leamt over the years with the result that people wander off offering suggestions to solve problems that have already been worked over and solutions found - but forgotten.

Over the years we have seen the development of good plans of action defining the business of the WIA and the lines of action we should be undertaking but after some years they are forgotten in the light of some new distraction. Then a few years later some bright spark comes forward with the idea that what we really need is reorganisation . Don't worry that, because we didn't keep our eye on the ball, we didn't get around to carrying out the perfectly good plans laid down a few years before .

Mr Luther's suggestion that another body be set up outside the WIA but with the same objectives of representing the members of the Amateur Radio Service (ARS) is divisive and will produce no benefit to the Organisation of the ARS .

I hope that you will use you best efforts to scuttle ideas of the kind of reorganisation offered by Mr Luther and help the present Organisation work more effectively and efficiently within its present constitution. I have no doubt that the WIA can be improved without revolutionary approaches.

But don't let's get distracted and don't let's forget. Keep the eye on the donut and not the hole!

Ken Fuller VK4KF. Member WIAQ

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